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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6403 | 16264 | 26424 | 2 | 9.0E-87 | 4757721 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 6403 | 16264 | 26425 | 2 | 9.0E-87 | 4757721 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 471 | 10414 | 20233 | 14.17 | 8.0E-87 | X62245.1 | NT | O. cuniculus mRNA for elongation factor 1 alpha |
| 2250 | 12134 | 22031 | 2.74 | 7.0E-87 | BF063211.1 | EST_HUMAN | 7i85f02.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3322779 3' |
| 2250 | 12134 | 22032 | 2.74 | 7.0E-87 | BF063211.1 | EST_HUMAN | 7i85f02.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3322779 3' |
| 6763 | 16642 | 26829 | 2.67 | 7.0E-87 | BF352776.1 | EST_HUMAN | IL3-HT0619-060700-198-D10 HT0619 Homo sapiens cDNA |
| 7794 | 17644 | 27877 | 3.38 | 7.0E-87 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 7794 | 17644 | 27878 | 3.38 | 7.0E-87 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 8264 | 18144 | 28384 | 10.88 | 7.0E-87 | K03002.1 | NT | Human mRNA from chromosome 15 gene with homology to MHC-HLA-SB-1 Intron A |
| 8264 | 18144 | 28385 | 10.88 | 7.0E-87 | K03002.1 | NT | Human mRNA from chromosome 15 gene with homology to MHC-HLA-SB-1 Intron A |
| 3482 | 13398 | 23203 | 0.87 | 6.0E-87 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 5868 | 15774 | 25893 | 1.73 | 6.0E-87 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 8107 | 17997 | | 3.52 | 6.0E-87 | 11432444 | NT | Homo sapiens similar to SET translocation (myeloid leukemia-associated) (H. sapiens) (LOC63102), mRNA |
| 1142 | 11056 | 20898 | 1.69 | 5.0E-87 | AA382811.1 | EST_HUMAN | EST196094 Testis 1 Homo sapiens cDNA 5' end |
| 9450 | 11056 | 20898 | 1.53 | 5.0E-87 | AA382811.1 | EST_HUMAN | EST196094 Testis 1 Homo sapiens cDNA 5' end |
| 950 | 10874 | 20721 | 1.33 | 4.0E-87 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1155 | 11068 | 20912 | 10.54 | 4.0E-87 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 1411 | 11316 | 21179 | 0.86 | 4.0E-87 | R78133.1 | EST_HUMAN | y80f10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145579 5' similar to contains Alu repetitive element |
| 1985 | 11878 | 21771 | 0.92 | 4.0E-87 | AB007925.1 | NT | Homo sapiens mRNA for KIAA0456 protein, partial cds |
| 2372 | 12252 | 22142 | 1.07 | 4.0E-87 | 7706299 | NT | Homo sapiens CGI-60 protein (LOC51626), mRNA |
| 2372 | 12252 | 22143 | 1.07 | 4.0E-87 | 7706299 | NT | Homo sapiens CGI-60 protein (LOC51626), mRNA |
| 3419 | 13336 | 23140 | 2.19 | 4.0E-87 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 5343 | 15264 | 25090 | 6.47 | 4.0E-87 | O00321 | SWISSPROT | ETS-RELATED PROTEIN 71 (ETS TRANSLLOCATION VARIANT 2) |
| 5686 | 15595 | 25696 | 4.36 | 4.0E-87 | BE247284.1 | EST_HUMAN | TCBAP1E4051 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4051 |
| 8505 | 18378 | 28644 | 4.35 | 4.0E-87 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 8994 | 18798 | 29091 | 2.13 | 4.0E-87 | 11417339 | NT | Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA |
| 9695 | 19246 | | 14.77 | 4.0E-87 | 11417812 | NT | Homo sapiens purinergic receptor P2X-like 1, orphan receptor (P2RX1), mRNA |
| 2749 | 12611 | 22502 | 2.99 | 2.0E-87 | 4885420 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 4 (HMG4) mRNA |
| 3717 | 13629 | 23414 | 0.89 | 2.0E-87 | AU116935.1 | EST_HUMAN | AU116935 HEMBA1 Homo sapiens cDNA clone HEMBA1000307 5' |
| 4826 | 14708 | 24492 | 1.17 | 2.0E-87 | BF376311.1 | EST_HUMAN | CMO-TN0038-150900-552-h08 TN0038 Homo sapiens cDNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4880 | 14760 | 24537 | 0.8 | 2.0E-87 | BE175478.1 | EST_HUMAN | RC5-H10580-200300-031-G04 HT0580 Homo sapiens cDNA |
| 5473 | 15393 | 25457 | 7.87 | 2.0E-87 | BE734190.1 | EST_HUMAN | 60156904F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5' |
| 5473 | 15393 | 25458 | 7.87 | 2.0E-87 | BE734190.1 | EST_HUMAN | 60156904F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5' |
| 5819 | 15726 | | 6.27 | 2.0E-87 | BE567193.1 | EST_HUMAN | 601341383F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3683348 5' |
| 6256 | 16122 | 26275 | 1.51 | 2.0E-87 | BE294432.1 | EST_HUMAN | 601176032F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531511 5' |
| 6407 | 16288 | 26430 | 32.21 | 2.0E-87 | N48128.1 | EST_HUMAN | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5' |
| 6526 | 16385 | 26564 | 28.31 | 2.0E-87 | N48128.1 | EST_HUMAN | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5' |
| 6892 | 16771 | 26966 | 3.81 | 2.0E-87 | XG2851.1 | NT | Human cyclophilin gene for cyclophilin (EC 5.2.1.8) |
| 7634 | 17485 | | 5.11 | 2.0E-87 | BE531136.1 | EST_HUMAN | 601278315F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610539 5' |
| 1165 | 12645 | | 2.33 | 1.0E-87 | 7705683 | NT | Homo sapiens putative glycolipid transfer protein (LOC51054), mRNA |
| 1413 | 11318 | 21181 | 0.94 | 1.0E-87 | AW361977.1 | EST_HUMAN | PM2-CT0265-141099-001-g04 CT0265 Homo sapiens cDNA |
| 1413 | 11318 | 21182 | 0.94 | 1.0E-87 | AW361977.1 | EST_HUMAN | PM2-CT0265-141099-001-g04 CT0265 Homo sapiens cDNA |
| 3649 | 13563 | 23349 | 3.18 | 1.0E-87 | Y00052.1 | NT | Human mRNA for T-cell cyclophilin |
| 3673 | 13587 | 23374 | 2.47 | 1.0E-87 | 4758827 | NT | Homo sapiens neuritin III (NRXN3) mRNA |
| 5057 | 14927 | 24699 | 1.04 | 1.0E-87 | U50949.1 | NT | Rattus norvegicus taste bud receptor protein TB 641 (TB 641) gene, complete cds |
| 5774 | 15681 | 25788 | 3.39 | 1.0E-87 | AF073371.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8 |
| 5774 | 15681 | 25789 | 3.39 | 1.0E-87 | AF073371.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8 |
| 6376 | 16238 | 26398 | 1.6 | 1.0E-87 | 11431590 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 6724 | 16604 | 26793 | 13.13 | 1.0E-87 | AF214562.1 | NT | Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds |
| 7165 | 17042 | 27233 | 1.19 | 1.0E-87 | AB022918.1 | NT | Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds |
| 7165 | 17042 | 27234 | 1.19 | 1.0E-87 | AB022918.1 | NT | Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds |
| 7554 | 17405 | 27620 | 2.77 | 1.0E-87 | BE818183.1 | EST_HUMAN | RC6-BN0276-050700-012-E02 BN0276 Homo sapiens cDNA |
| 7554 | 17405 | 27621 | 2.77 | 1.0E-87 | BE818183.1 | EST_HUMAN | RC6-BN0276-050700-012-E02 BN0276 Homo sapiens cDNA |
| 8114 | 18003 | 28249 | 2.06 | 1.0E-87 | 5729867 | NT | Homo sapiens hec domain and RLD 2 (HERC2), mRNA |
| 8367 | 18244 | | 1.78 | 1.0E-87 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 9539 | 19761 | | 2.02 | 1.0E-87 | 7657632 | NT | Homo sapiens sulfotransferase-related protein (SUL.TX3), mRNA |
| 1030 | 11006 | 20847 | 7.39 | 9.0E-88 | AF167465.1 | NT | Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exon 12 |
| 1327 | 11234 | 21090 | 2 | 9.0E-88 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 1327 | 11234 | 21091 | 2 | 9.0E-88 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 3574 | 13488 | 23279 | 1.13 | 9.0E-88 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4172 | 14072 | 23847 | 2.64 | 9.0E-88 | X91929.1 | NT | H. sapiens ECE-1 gene (exon 9) |
| 4172 | 14072 | 23848 | 2.64 | 9.0E-88 | X91929.1 | NT | H. sapiens ECE-1 gene (exon 9) |
| 4934 | 14812 | 24580 | 1.23 | 9.0E-88 | AB028898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7216 | 17093 | 27284 | 3.69 | 6.0E-88 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 1787 | 11685 | | 1.19 | 5.0E-88 | 7661887 | NT | Homo sapiens KIAA0063 gene product (KIAA0063), mRNA |
| 2602 | 12470 | 22366 | 3 | 5.0E-88 | N89399.1 | EST_HUMAN | K9719F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K9719 5' similar to ZINC FINGER PROTEIN HZF1 |
| 2970 | 12897 | 22696 | 0.92 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 2978 | 12905 | 22704 | 0.94 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 2978 | 12905 | 22705 | 0.94 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3343 | 13263 | | 2.31 | 5.0E-88 | AF693217.1 | EST_HUMAN | wd68h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2336799 3' similar to contains Alu repetitive element; contains element MER22 MER22 repetitive element; |
| 3491 | 13407 | 23212 | 0.91 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 4631 | 14519 | 24310 | 0.87 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 6059 | 16042 | 26185 | 2.64 | 5.0E-88 | H10832.1 | EST_HUMAN | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 6627 | 16507 | 26694 | 1.84 | 5.0E-88 | AL163284.2 | NT | ym06b10.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:47129 5' |
| 1307 | 11214 | 21070 | 1.64 | 4.0E-88 | BF091229.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C084 |
| 1307 | 11214 | 21071 | 1.64 | 4.0E-88 | BF091229.1 | EST_HUMAN | PM1-TN0028-050900-004-f10 TN0028 Homo sapiens cDNA |
| 6295 | 16159 | 26316 | 1.93 | 4.0E-88 | 11416585 | NT | PM1-TN0028-050900-004-f10 TN0028 Homo sapiens cDNA |
| 8281 | 18160 | 28402 | 2.84 | 4.0E-88 | 4502694 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA |
| 8780 | 18595 | 28883 | 2.1 | 4.0E-88 | 7661947 | NT | Homo sapiens cell division cycle 10 (homologous to CDC10 of S. cerevisiae) (CDC10) mRNA |
| 8780 | 18595 | 28884 | 2.1 | 4.0E-88 | 7661947 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 715 | 10647 | 20475 | 0.93 | 3.0E-88 | 11545800 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 1770 | 11669 | | 4.77 | 3.0E-88 | 4508020 | NT | Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA |
| 2918 | 12845 | 22647 | 4.31 | 3.0E-88 | N66951.1 | EST_HUMAN | Homo sapiens zinc finger protein 259 (ZNF259) mRNA |
| 4147 | 14047 | 23819 | 1.21 | 3.0E-88 | 4501912 | NT | za48f12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 3' |
| 4147 | 14047 | 23820 | 1.21 | 3.0E-88 | 4501912 | NT | Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA |
| 4380 | 14276 | | 3.17 | 3.0E-88 | 11429300 | NT | Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA |
| 5242 | 15166 | 24937 | 4.09 | 3.0E-88 | 11429567 | NT | Homo sapiens hypothetical protein FLJ20220 (FLJ20220), mRNA |
| 5429 | 15349 | 25403 | 3.84 | 3.0E-88 | 9986888 | NT | Homo sapiens valosin-containing protein (VOP), mRNA |
| 5498 | 15417 | 25480 | 3.39 | 3.0E-88 | 11420697 | NT | Homo sapiens polycythemia rubra vera 1; cell surface receptor (PRV1), mRNA |
| 6204 | 15084 | 26098 | 12.03 | 3.0E-88 | AF279265.1 | NT | Homo sapiens v-rat simian leukemia viral oncogene homolog A (ras related) (RALA), mRNA |
| 6452 | 16313 | 26479 | 6.66 | 3.0E-88 | 11436400 | NT | Homo sapiens putative anion transporter 1 mRNA, complete cds |
| | | | | | | | Homo sapiens retinoblastoma-binding protein 2 (RBBP2), mRNA |
| 6620 | 16500 | 26688 | 8.52 | 3.0E-88 | 11421726 | NT | Homo sapiens growth differentiation factor 5 (cartilage-derived morphogenetic protein-1) (GDF5), mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6769 | 16848 | 28836 | 1.41 | 3.0E-88 | AF034374.1 | NT | Homo sapiens molybdenum cofactor biosynthesis protein A and molybdenum cofactor biosynthesis protein C mRNA, complete cds |
| 7427 | 16440 | 26626 | 2.12 | 3.0E-88 | 11526262 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 9286 | 18988 | | 4.78 | 3.0E-88 | 11417974 | NT | Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA |
| 1020 | 10938 | 20780 | 1.42 | 2.0E-88 | 7305198 | NT | Homo sapiens Caldesin, presenilin-binding protein, EF hand transcription factor (CSEN), mRNA |
| 1607 | 11512 | 21372 | 0.93 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 1716 | 11617 | 21486 | 4.19 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 4328 | 14225 | 24007 | 1.93 | 2.0E-88 | 5031666 | NT | Homo sapiens dynein, axonemal, light polypeptide 4 (DNAL4), mRNA |
| 5604 | 15518 | 25597 | 4.98 | 1.0E-88 | AW139565.1 | EST_HUMAN | UI-H-B11-aea-d-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718760 3' |
| 5604 | 15518 | 25598 | 4.98 | 1.0E-88 | AW139565.1 | EST_HUMAN | UI-H-B11-aea-d-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718760 3' |
| 6004 | 15909 | 26033 | 17.59 | 1.0E-88 | AB007877.1 | NT | Homo sapiens KIAA0417 mRNA, complete cds |
| 6004 | 15909 | 26034 | 17.59 | 1.0E-88 | AB007877.1 | NT | Homo sapiens KIAA0417 mRNA, complete cds |
| 6263 | 16128 | 26282 | 4.06 | 1.0E-88 | AA488981.1 | EST_HUMAN | aa54a11.s1 NCI_CGAP_G0B1 Homo sapiens cDNA clone IMAGE:824732 3' similar to WP:B0272.2 CE00851 |
| 7524 | 17375 | 27584 | 2.95 | 1.0E-88 | AL043314.2 | EST_HUMAN | DKFP434N0323_1 434 (synonym: htes3) Homo sapiens cDNA clone DKFP434N0323 5' |
| 8742 | 17891 | 28135 | 2.27 | 1.0E-88 | AA991479.1 | EST_HUMAN | os91g03.s1 NCI_CGAP_G03 Homo sapiens cDNA clone IMAGE:1612756 3' similar to gb:M16342 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEINS C1/C2 (HUMAN); |
| 9502 | 19117 | | 2.98 | 1.0E-88 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8321 | 18198 | 28447 | 4.12 | 9.0E-89 | 11421238 | NT | Homo sapiens transgelin 2 (TAGLN2), mRNA |
| 2705 | 12568 | 22459 | 1.41 | 8.0E-89 | BE311557.1 | EST_HUMAN | 601142409F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506186 5' |
| 426 | 10371 | 20194 | 1.35 | 7.0E-89 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 426 | 10371 | 20195 | 1.35 | 7.0E-89 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 4785 | 14670 | 24457 | 2.94 | 7.0E-89 | 4557390 | NT | Homo sapiens complement component 8, beta polypeptide (C8B) mRNA |
| 4847 | 14728 | 24511 | 5.14 | 7.0E-89 | AL045748.1 | EST_HUMAN | DKFP434E246_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFP434E246 5' |
| 5334 | 15254 | 25076 | 1.35 | 7.0E-89 | X99832.1 | NT | H. sapiens CLN3 gene, complete CDS |
| 5334 | 15254 | 25077 | 1.35 | 7.0E-89 | X99832.1 | NT | H. sapiens CLN3 gene, complete CDS |
| 6428 | 16289 | 26450 | 1.78 | 7.0E-89 | 11420754 | NT | Homo sapiens actin related protein 2/3 complex, subunit 1A (41 kD) (ARPC1A), mRNA |
| 8006 | 17856 | 28097 | 1.42 | 7.0E-89 | X62048.1 | NT | H. sapiens Wee1 hu gene |
| 8006 | 17856 | 28098 | 1.42 | 7.0E-89 | X62048.1 | NT | H. sapiens Wee1 hu gene |
| 8012 | 17862 | 28107 | 1.17 | 7.0E-89 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 8012 | 17862 | 28108 | 1.17 | 7.0E-89 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 9920 | 19393 | | 3.07 | 7.0E-89 | U87927.1 | NT | Human aconitate hydratase (ACO2) gene, exon 2 |
| 1006 | 10924 | 20768 | 1.07 | 6.0E-89 | 5803114 | NT | Homo sapiens inner membrane protein, mitochondrial (IMMT), mRNA |
| 2166 | 12053 | 21954 | 1.12 | 6.0E-89 | 4506124 | NT | Homo sapiens serine/threonine-protein kinase PRP4 homolog (PRP4) mRNA |

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| 2383 | 12263 | 22154 | 1.97 | 6.0E-89 | 4507788 | NT | Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3) mRNA |
| 2383 | 12263 | 22155 | 1.97 | 6.0E-89 | 4507788 | NT | Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3) mRNA |
| 3480 | 13396 | 23201 | 0.84 | 6.0E-89 | 7661817 | NT | Homo sapiens HSPC159 protein (HSPC159), mRNA |
| 4537 | 14430 | 24211 | 3.5 | 6.0E-89 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 4537 | 14430 | 24212 | 3.5 | 6.0E-89 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 5007 | 14881 | 24646 | 2.77 | 5.0E-89 | BE244323.1 | EST_HUMAN | TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0383 |
| 5007 | 14881 | 24647 | 2.77 | 5.0E-89 | BE244323.1 | EST_HUMAN | TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0383 |
| 6477 | 16336 | 26503 | 1.33 | 4.0E-89 | BE762749.1 | EST_HUMAN | QV3-NT0022-080600-219-g03 NT0022 Homo sapiens cDNA |
| 2847 | 12775 | 22563 | 1.61 | 3.0E-89 | AW976181.1 | EST_HUMAN | EST1388290 MAGE resequences, MAGN Homo sapiens cDNA |
| 9688 | 19241 | 25215 | 1.92 | 3.0E-89 | AV705749.1 | EST_HUMAN | AV705749 ADB Homo sapiens cDNA clone ADBBGA01 5' |
| 121 | 10348 | 20175 | 1.46 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 121 | 10348 | 20176 | 1.46 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 402 | 10348 | 20175 | 0.91 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 402 | 10348 | 20176 | 0.91 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 519 | 10461 | 20272 | 0.83 | 2.0E-89 | AB037763.1 | NT | Homo sapiens mRNA for KIAA1342 protein, partial cds |
| 2852 | 12780 | 22569 | 2.01 | 2.0E-89 | AI222095.1 | EST_HUMAN | qg96c08.x1 Soares NFL T. GBC. S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 |
| 4053 | 13955 | 23731 | 1.45 | 2.0E-89 | AF089897.1 | NT | GAMMA-GLUTAMYL TRANSPEPTIDASE 1 PRECURSOR (HUMAN); contains Alu repetitive element |
| 4061 | 13963 | 23740 | 6.18 | 2.0E-89 | X58742.1 | NT | Homo sapiens topoisomerase-related function protein (TRF4-2) mRNA, partial cds |
| 4061 | 13963 | 23741 | 6.18 | 2.0E-89 | X58742.1 | NT | H. sapiens HCK gene for tyrosine kinase (PTK), exons 10-11 |
| 4396 | 14292 | 24076 | 1.14 | 2.0E-89 | AJ007378.1 | NT | H. sapiens HCK gene for tyrosine kinase (PTK), exons 10-11 |
| 5368 | 15288 | 25123 | 2.5 | 2.0E-89 | AB007546.1 | NT | Homo sapiens GGT gene, exon 5 |
| 5538 | 15455 | 25525 | 1.6 | 2.0E-89 | U03985.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 6520 | 16379 | 26557 | 4.93 | 2.0E-89 | U81004.1 | NT | Human N-ethylmaleimide-sensitive factor mRNA, partial cds |
| 6630 | 16510 | 26699 | 3.73 | 2.0E-89 | 11428801 | NT | Human G124 (G124) mRNA, partial cds |
| 8690 | 18568 | 28851 | 2.63 | 2.0E-89 | 11434411 | NT | Homo sapiens solute carrier family 24 (sodium/potassium/calcium exchanger), member 2 (SLC24A2), mRNA |
| 8854 | 18666 | 28953 | 4.87 | 2.0E-89 | 11433673 | NT | Homo sapiens integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor) (ITGA3), mRNA |
| 8955 | 18762 | 29055 | 2.24 | 2.0E-89 | U10692.1 | NT | Homo sapiens cell adhesion molecule with homology to L1CAM (close homologue of L1) (CHL1), mRNA |
| | | | | | | | Human MAGE-7 antigen (MAGE7) pseudogene, complete cds |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8860 | 18672 | 28960 | 6.12 | 1.0E-89 | BF196052.1 | EST_HUMAN | hr81d09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN; |
| 8860 | 18672 | 28961 | 6.12 | 1.0E-89 | BF196052.1 | EST_HUMAN | hr81d09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN; |
| 6789 | 16668 | 26859 | 1.16 | 9.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 6789 | 16668 | 26860 | 1.16 | 9.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1047 | 10965 | 20806 | 1.62 | 8.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1048 | 10965 | 20806 | 2.93 | 8.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1308 | 12690 | 21072 | 5.28 | 8.0E-90 | BE670561.1 | EST_HUMAN | 7e36f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3' |
| 1308 | 12690 | 21073 | 5.28 | 8.0E-90 | BE670561.1 | EST_HUMAN | 7e36f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3' |
| 818 | 10746 | | 2.65 | 7.0E-90 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 6907 | 16785 | | 1.91 | 7.0E-90 | AA782977.1 | EST_HUMAN | ai63d08.s1 Soares testis_NHT Homo sapiens cDNA clone 1375503 3' |
| 7183 | 17060 | 27260 | 1.88 | 7.0E-90 | BE962625.2 | EST_HUMAN | 601655837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824 3' |
| 7183 | 17060 | 27251 | 1.88 | 7.0E-90 | BE962625.2 | EST_HUMAN | 601655837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824 3' |
| 7833 | 17683 | 27927 | 1.98 | 7.0E-90 | H68849.1 | EST_HUMAN | yr86e04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C11TC_HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC; |
| 7833 | 17683 | 27928 | 1.98 | 7.0E-90 | H68849.1 | EST_HUMAN | yr86e04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C11TC_HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC; |
| 3029 | 12957 | 22749 | 1.14 | 6.0E-90 | X91926.1 | NT | H.sapiens ECE-1 gene (exon 6) |
| 3029 | 12957 | 22750 | 1.14 | 6.0E-90 | X91926.1 | NT | H.sapiens ECE-1 gene (exon 6) |
| 4134 | 14034 | 23809 | 7.33 | 6.0E-90 | 8922398 | NT | Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA |
| 4134 | 14034 | 23810 | 7.33 | 6.0E-90 | 8922398 | NT | Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA |
| 5641 | 15554 | 25646 | 3.54 | 6.0E-90 | U77700.1 | NT | Homo sapiens HsGCN1 mRNA, partial cds |
| 5641 | 15554 | 25647 | 3.54 | 6.0E-90 | U77700.1 | NT | Homo sapiens HsGCN1 mRNA, partial cds |
| 6846 | 16725 | 26918 | 3.25 | 6.0E-90 | 4504794 | NT | Homo sapiens inositol 1,4,5-trisphosphate receptor, type 3 (ITPR3) mRNA |
| 6846 | 16725 | 26919 | 3.25 | 6.0E-90 | 4504794 | NT | Homo sapiens inositol 1,4,5-trisphosphate receptor, type 3 (ITPR3) mRNA |
| 149 | 10123 | | 10.5 | 5.0E-90 | AB035344.1 | NT | Homo sapiens TClb gene, exon 1-10b |
| 1175 | 11087 | 20831 | 1.55 | 5.0E-90 | U80226.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |
| 2508 | 12882 | 22273 | 2.19 | 5.0E-90 | AF114487.1 | NT | Homo sapiens intersecin long isoform (ITSN) mRNA, complete cds |
| 4440 | 14334 | 24124 | 3.08 | 5.0E-90 | 4506354 | NT | Homo sapiens pregnancy-zone protein (PZP) mRNA |
| 4507 | 14400 | 24186 | 1.07 | 5.0E-90 | AA705222.1 | EST_HUMAN | z82g10.s1 Soares fetal liver spleen 1NFLS S1 Homo sapiens cDNA clone IMAGE:461442 3' |
| 4507 | 14400 | 24187 | 1.07 | 5.0E-90 | AA705222.1 | EST_HUMAN | z82g10.s1 Soares fetal liver spleen 1NFLS S1 Homo sapiens cDNA clone IMAGE:461442 3' |
| 4571 | 14463 | 24251 | 0.98 | 5.0E-90 | AL135549.1 | EST_HUMAN | DKFZp762P1616_r1 762 (synonym: hme2) Homo sapiens cDNA clone DKFZp762P1616 5' |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5433 | 15353 | 25409 | 2.52 | 5.0E-90 | Z16411.1 | NT | H. sapiens mRNA encoding phospholipase c |
| 5523 | 15353 | 25409 | 2.13 | 5.0E-90 | Z16411.1 | NT | H. sapiens mRNA encoding phospholipase c |
| 6283 | 16147 | 26302 | 2.26 | 5.0E-90 | AF113708.1 | NT | Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds |
| 6283 | 16147 | 26303 | 2.26 | 5.0E-90 | AF113708.1 | NT | Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds |
| 6464 | 16323 | 26489 | 7.93 | 5.0E-90 | 4557258 | NT | Homo sapiens adenylate cyclase 9 (ADCY9) mRNA |
| 6825 | 16704 | 26899 | 4.66 | 5.0E-90 | 11345483 | NT | Homo sapiens hypothetical protein FLJ13222 (FLJ13222), mRNA |
| 7581 | 17432 | 27646 | 1.24 | 5.0E-90 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 7988 | 17818 | 28060 | 15.41 | 5.0E-90 | 11433721 | NT | Homo sapiens ATPase, aminophospholipid transporter-like, Class I, type 8A, member 2 (ATP8A2), mRNA |
| 9744 | 19306 | | 2.16 | 5.0E-90 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 9789 | 19299 | | 2.37 | 5.0E-90 | AF523366.1 | EST_HUMAN | ar78h05.x1 Barslead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2128761 3' |
| 299 | 10263 | 20083 | 1.85 | 4.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 299 | 10263 | 20084 | 1.85 | 4.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1070 | 10986 | 20829 | 2.94 | 4.0E-90 | 4505316 | NT | Homo sapiens myosin phosphatase, target subunit 1 (MYPT1), mRNA |
| 1663 | 11565 | 21432 | 9.22 | 4.0E-90 | X99033.1 | NT | H. sapiens gene encoding discoidin receptor tyrosine kinase, exon 16 |
| 4557 | 14449 | 24235 | 4.07 | 4.0E-90 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4691 | 14577 | 24372 | 1.97 | 4.0E-90 | AB033070.1 | NT | Homo sapiens mRNA for KIAA1244 protein, partial cds |
| 4713 | 14599 | 24385 | 1.9 | 4.0E-90 | MB9967.1 | NT | Human prohormone converting enzyme (NEC2) gene, exon 8 |
| 8901 | 18709 | 29004 | 103.82 | 3.0E-90 | BE563883.1 | EST_HUMAN | 601335244F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689147 5' |
| 207 | 10178 | 19995 | 4.28 | 2.0E-90 | BE537913.1 | EST_HUMAN | 601067378F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453834 5' |
| 1156 | 11069 | 20913 | 3.65 | 2.0E-90 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 1156 | 11069 | 20914 | 3.65 | 2.0E-90 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 3771 | 13683 | 23465 | 2.81 | 2.0E-90 | AH138213.1 | EST_HUMAN | qc54cd02.x1 Soares placenta 86c9weeks 2NBHP869W Homo sapiens cDNA clone IMAGE:1713410 3' |
| 4588 | 14476 | 24264 | 1.13 | 2.0E-90 | AB006627.1 | NT | similar to SW:OLF3_MOUSE P23275 OLFACTORY RECEPTOR OR3. ; |
| 4820 | 14703 | 24488 | 8.33 | 2.0E-90 | 5729855 | NT | Homo sapiens mRNA for KIAA0289 gene, partial cds |
| 5534 | 15451 | 25519 | 4.34 | 2.0E-90 | AW672886.1 | EST_HUMAN | Homo sapiens GRB2-related adaptor protein (GRAP) mRNA |
| 7638 | 17489 | 27708 | 2.9 | 2.0E-90 | 11427320 | NT | ba49d05.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2899881 5' similar to TR:O75208 O75208 HYPOTHETICAL 35.5 KD PROTEIN. ; |
| 7638 | 17489 | 27709 | 2.9 | 2.0E-90 | 11427320 | NT | Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484), mRNA |
| 7722 | 17572 | 27796 | 1.56 | 2.0E-90 | AU118985.1 | EST_HUMAN | Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484), mRNA |
| | | | | | | | AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5' |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO. | Exon SEQ ID NO. | ORF SEQ ID NO. | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7722 | 17572 | 27797 | 1.56 | 2.0E-90 | AU118985.1 | EST_HUMAN | AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5' |
| 8765 | 17914 | 28159 | 49.27 | 2.0E-90 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 275 | 10241 | 20060 | 3.39 | 1.0E-90 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 370 | 12639 | 20148 | 1.21 | 1.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 371 | 12639 | 20148 | 1.04 | 1.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 680 | 10613 | 20435 | 2.03 | 1.0E-90 | AJ237589.1 | NT | Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial |
| 680 | 10613 | 20436 | 2.03 | 1.0E-90 | AJ237589.1 | NT | Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial |
| 713 | 10645 | 20472 | 7.71 | 1.0E-90 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 713 | 10645 | 20473 | 7.71 | 1.0E-90 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1094 | 11010 | | 2.45 | 1.0E-90 | 4507828 | NT | Homo sapiens Kruppel-like factor 7 (ubiquitous) (KLF7), mRNA |
| 1284 | 11192 | 21044 | 3.47 | 1.0E-90 | AF096154.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3 |
| 1284 | 11192 | 21045 | 3.47 | 1.0E-90 | AF096154.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3 |
| 1644 | 11548 | | 4.02 | 1.0E-90 | BE379884.1 | EST_HUMAN | 601159563F2 NIH_MGC 53 Homo sapiens cDNA clone IMAGE:351118 5' |
| 1860 | 11756 | 21631 | 4.99 | 1.0E-90 | 11420514 | NT | Homo sapiens similar to SALL1 (sal (Drosophila)-like (LOC57167), mRNA |
| 2823 | 12752 | 22545 | 8.4 | 1.0E-90 | 6005720 | NT | Homo sapiens chromosome 8 open reading frame 2 (C8ORF2), mRNA |
| 3777 | 13689 | 23473 | 1.18 | 1.0E-90 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 3777 | 13689 | 23474 | 1.18 | 1.0E-90 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 4326 | 14223 | 24005 | 1 | 1.0E-90 | AF167340.1 | NT | Homo sapiens soluble interleukin 1 receptor accessory protein (IL1RAP) gene, exon 8, alternative exons 9 and complete cds, alternatively spliced |
| 5481 | 15401 | 25464 | 2.2 | 1.0E-90 | AB014533.1 | NT | Homo sapiens mRNA for KIAA0633 protein, partial cds |
| 6521 | 16380 | 26558 | 2.85 | 1.0E-90 | 11426758 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA |
| 7121 | 16998 | 27189 | 3.78 | 1.0E-90 | 11422086 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 7366 | 17224 | | 1.22 | 1.0E-90 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 7371 | 17240 | 27444 | 1.72 | 1.0E-90 | 11422109 | NT | Homo sapiens CGI-15 protein (LOC51006), mRNA |
| 7371 | 17240 | 27445 | 1.72 | 1.0E-90 | 11422109 | NT | Homo sapiens CGI-15 protein (LOC51006), mRNA |
| 9732 | 19268 | 25225 | 1.89 | 1.0E-90 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 9732 | 19268 | 25226 | 1.89 | 1.0E-90 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 4101 | 14001 | 23780 | 5.48 | 8.0E-91 | D1234.1 | EST_HUMAN | HUM000S381 Liver HepG2 cell line. Homo sapiens cDNA clone s381 3' |
| 1428 | 11333 | 21199 | 0.88 | 7.0E-91 | AF053768.1 | NT | Rattus norvegicus brain specific contactin-binding protein CBP90 mRNA, partial cds |
| 6835 | 16714 | 26907 | 2.05 | 7.0E-91 | 11419234 | NT | Homo sapiens makorin, ring finger protein, 1 (MKRN1), mRNA |
| 3429 | 13346 | 23151 | 1.47 | 5.0E-91 | AA702794.1 | EST_HUMAN | z90b04.s1 Soares_fetal_liver_spleen_1NFSL_S1 Homo sapiens cDNA clone IMAGE:448015 3' |
| 4415 | 14309 | 24092 | 1.05 | 5.0E-91 | AU143539.1 | EST_HUMAN | AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5' |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 4415 | 14309 | 24033 | 1.05 | 5.0E-91 | AU143539.1 | EST_HUMAN | AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5' |
| 4703 | 14589 | 24379 | 0.82 | 5.0E-91 | 7110634 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 4703 | 14589 | 24380 | 0.82 | 5.0E-91 | 7110634 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 7087 | 16964 | 27157 | 1.34 | 5.0E-91 | AV649878.1 | EST_HUMAN | AV649878 GLC Homo sapiens cDNA clone GLOBYF08 3' |
| 7087 | 16964 | 27158 | 1.34 | 5.0E-91 | AV649878.1 | EST_HUMAN | AV649878 GLC Homo sapiens cDNA clone GLOBYF08 3' |
| 3166 | 13091 | 22895 | 1.3 | 4.0E-91 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 3166 | 13091 | 22896 | 1.3 | 4.0E-91 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 8301 | 18180 | 28427 | 3.13 | 4.0E-91 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 9239 | 18954 | 25314 | 1.67 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 9239 | 18954 | 25360 | 1.67 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 1601 | 11506 | 21366 | 5.12 | 3.0E-91 | 11430193 | NT | Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA |
| 1601 | 11506 | 21367 | 5.12 | 3.0E-91 | 11430193 | NT | Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA |
| 2624 | 12492 | 22382 | 0.99 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 2624 | 12492 | 22383 | 0.99 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 3297 | 13219 | 23020 | 1.77 | 3.0E-91 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 3416 | 13333 | 23136 | 2.96 | 3.0E-91 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3416 | 13333 | 23137 | 2.96 | 3.0E-91 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3720 | 13632 | 23418 | 0.83 | 3.0E-91 | AF084530.1 | NT | Homo sapiens cyclin-D binding Myb-like protein mRNA, complete cds |
| 4487 | 14381 | 24168 | 4.02 | 3.0E-91 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4905 | 14785 | 24560 | 1.2 | 3.0E-91 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 4905 | 14785 | 24561 | 1.2 | 3.0E-91 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5488 | 15407 | 25470 | 1.45 | 3.0E-91 | 11434964 | NT | Homo sapiens epididymal secretory protein (19.5kD) (HE1), mRNA |
| 5807 | 15712 | | 2.39 | 3.0E-91 | 4502740 | NT | Homo sapiens cyclin-dependent kinase 6 (CDK6) mRNA |
| 5967 | 15872 | 25996 | 4.11 | 3.0E-91 | 11497611 | NT | Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA |
| 5967 | 15872 | 25997 | 4.11 | 3.0E-91 | 11497611 | NT | Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA |
| 6502 | 16361 | 26535 | 4.4 | 3.0E-91 | U86959.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11 |
| 6502 | 16361 | 26536 | 4.4 | 3.0E-91 | U86959.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11 |
| 7093 | 16970 | 27163 | 3.31 | 3.0E-91 | D16494.1 | NT | Human mRNA for very low density lipoprotein receptor, complete cds |
| 9480 | 19104 | 25286 | 1.45 | 3.0E-91 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9812 | 12492 | 22382 | 3.03 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 9812 | 12492 | 22383 | 3.03 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 42 | 10030 | 19833 | 3.02 | 1.0E-91 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 1225 | 11133 | 20987 | 3.58 | 1.0E-91 | AW449746.1 | EST_HUMAN | UI-H-B13-aks-d-01-0-UI.s1 NCI CGAP Sub5 Homo sapiens cDNA clone IMAGE:2735280 3' |
| 6090 | 16035 | 26176 | 1.7 | 1.0E-91 | BF348182.1 | EST_HUMAN | 602022088F1 NCI CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157804 5' |
| 6090 | 16035 | 26176 | 1.7 | 1.0E-91 | BF348182.1 | EST_HUMAN | 602022088F1 NCI CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157804 5' |
| 9398 | 19885 | | 2.42 | 1.0E-91 | H15121.1 | EST_HUMAN | ym30e03.r1 Scores infant brain 1NIB Homo sapiens cDNA clone IMAGE:49587 5' |
| 1221 | 11130 | 20981 | 8.41 | 9.0E-92 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 1221 | 11130 | 20982 | 8.41 | 9.0E-92 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 5353 | 15273 | 25103 | 3.56 | 9.0E-92 | J03007.1 | NT | Human Nat-K+ ATPase alpha-subunit mRNA, partial cds |
| 5442 | 15362 | 25418 | 1.75 | 9.0E-92 | 11427149 | NT | Homo sapiens hypothetical protein FLJ20260 (FLJ20260), mRNA |
| 5882 | 15789 | 25911 | 3.22 | 9.0E-92 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 6878 | 16757 | 26954 | 19.33 | 9.0E-92 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 6878 | 16757 | 26955 | 19.33 | 9.0E-92 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 7342 | 17210 | 27409 | 1.66 | 9.0E-92 | 11422086 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 87 | 10071 | 19887 | 2.02 | 8.0E-92 | W26387.1 | EST_HUMAN | 26f3 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 283 | 10248 | 20088 | 5.9 | 8.0E-92 | BE386363.1 | EST_HUMAN | 601273513F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614667 5' |
| 1778 | 11677 | 21554 | 1.29 | 8.0E-92 | 11434722 | NT | Homo sapiens diacylglycerol kinase, gamma (90kD) (DGKG), mRNA |
| 1778 | 11677 | 21555 | 1.29 | 8.0E-92 | 11434722 | NT | Homo sapiens diacylglycerol kinase, gamma (90kD) (DGKG), mRNA |
| 5944 | 15849 | 25973 | 1.29 | 8.0E-92 | AJ000979.1 | NT | Homo sapiens MCP-4 gene |
| 6908 | 16786 | 26978 | 3.61 | 8.0E-92 | L04193.1 | NT | Human lens membrane protein (mp19) gene, exon 11 |
| 6908 | 16786 | 26979 | 3.61 | 8.0E-92 | L04193.1 | NT | Human lens membrane protein (mp19) gene, exon 11 |
| 7242 | 17119 | 27314 | 2.61 | 8.0E-92 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 7760 | 17610 | 27836 | 1.31 | 8.0E-92 | Y13829.1 | NT | Homo sapiens mRNA for MBNL protein |
| 8180 | 18067 | 28316 | 4.53 | 8.0E-92 | AF074393.1 | NT | Homo sapiens nuclear mitogen- and stress-activated protein kinase-1 (MSK1) mRNA, complete cds |
| 8667 | 18556 | 28841 | 3.21 | 8.0E-92 | 4503340 | NT | Homo sapiens dihydropyrimidine S-succinyltransferase (E2 component of 2-oxo-glutarate complex) (DLST) mRNA |
| 9572 | 19162 | 25268 | 1.43 | 8.0E-92 | 11434704 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 60 | 10046 | 19858 | 2.64 | 7.0E-92 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 236 | 12662 | 20020 | 2.51 | 7.0E-92 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 236 | 12662 | 20021 | 2.51 | 7.0E-92 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 576 | 10514 | | 1.25 | 7.0E-92 | AF007822.1 | NT | Homo sapiens cytoplasmic Seprase truncated isoform mRNA, complete cds |
| 1259 | 11166 | 21017 | 1.91 | 7.0E-92 | 4502384 | NT | Homo sapiens B-cell CLL/lymphoma 7b (BCL7B) mRNA |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2139 | 12027 | 21923 | 1.67 | 7.0E-92 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2139 | 12027 | 21924 | 1.67 | 7.0E-92 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2517 | 12391 | 22283 | 2.32 | 7.0E-92 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 2683 | 12558 | 22445 | 5.01 | 7.0E-92 | 6005738 | NT | Homo sapiens NRAS-related gene (DIS155E), mRNA |
| 2724 | 12586 | 22481 | 1.04 | 7.0E-92 | AB031007.1 | NT | Homo sapiens DNA, MHC class I region, 7.1 ancestral haplotype |
| 3301 | 15068 | 23023 | 0.92 | 7.0E-92 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 3301 | 15068 | 23024 | 0.92 | 7.0E-92 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4484 | 14378 | 24165 | 1.61 | 7.0E-92 | S71824.1 | NT | N-CAM=145 kda neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2960 nt] |
| 4484 | 14378 | 24166 | 1.61 | 7.0E-92 | S71824.1 | NT | N-CAM=145 kda neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2960 nt] |
| 5110 | 14978 | 24752 | 1.45 | 7.0E-92 | 4506118 | NT | Homo sapiens prospero-related homeobox 1 (PROX1) mRNA |
| 5219 | 15142 | 24836 | 4.97 | 7.0E-92 | AA448206.1 | EST_HUMAN | z66d12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781175 5' |
| 1569 | 11473 | 22494 | 0.93 | 5.0E-92 | BE390882.1 | EST_HUMAN | 601283012F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605018 5' |
| 2738 | 12600 | 22494 | 2.45 | 3.0E-92 | BE909714.1 | EST_HUMAN | 601501242F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902939 5' |
| 5583 | 15498 | 25575 | 3.74 | 3.0E-92 | AA378336.1 | EST_HUMAN | EST91020 Synovial sarcoma Homo sapiens cDNA 5' end similar to ribosomal protein S13 |
| 8146 | 18034 | 28281 | 5.7 | 3.0E-92 | X15804.1 | NT | Human mRNA for alpha-actinin |
| 8146 | 18034 | 28282 | 5.7 | 3.0E-92 | X15804.1 | NT | Human mRNA for alpha-actinin |
| 23 | 10010 | 19803 | 1.53 | 2.0E-92 | 4501898 | NT | Homo sapiens activin A receptor, type IIB (ACVR2B) mRNA |
| 172 | 10143 | 19958 | 2.93 | 2.0E-92 | 11422946 | NT | Homo sapiens hypothetical protein dJ462023.2 (DJ462023.2), mRNA |
| 172 | 10143 | 19959 | 2.93 | 2.0E-92 | 11422946 | NT | Homo sapiens hypothetical protein dJ462023.2 (DJ462023.2), mRNA |
| 732 | 10664 | 20497 | 1.38 | 2.0E-92 | BE299190.1 | EST_HUMAN | 601118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5' |
| 732 | 10664 | 20498 | 1.38 | 2.0E-92 | BE299190.1 | EST_HUMAN | 601118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5' |
| 1686 | 11588 | | 2.74 | 2.0E-92 | S78653.1 | NT | migrasas-related [human, Genomic, 2416 nt] |
| 1894 | 11789 | 21667 | 1.55 | 2.0E-92 | AB18119.1 | EST_HUMAN | wk27rd07.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844 |
| 1894 | 11789 | 21668 | 1.55 | 2.0E-92 | AB18119.1 | EST_HUMAN | Q12844 BREAKPOINT CLUSTER REGION PROTEIN ; |
| 2002 | 11895 | 21787 | 4.71 | 2.0E-92 | 4506860 | NT | wk27rd07.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844 |
| 2623 | 12491 | 22381 | 37.64 | 2.0E-92 | 6912457 | NT | Q12844 BREAKPOINT CLUSTER REGION PROTEIN ; |
| 3562 | 13476 | 23265 | 1.02 | 2.0E-92 | AF231919.1 | NT | Homo sapiens syndecan 4 (amphiglycan, ryudocan) (SDC4) mRNA |
| 3562 | 13476 | 23266 | 1.02 | 2.0E-92 | AF231919.1 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 3631 | 13545 | 23332 | 4.99 | 2.0E-92 | 5803180 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3631 | 13545 | 23332 | 4.99 | 2.0E-92 | 5803180 | NT | Homo sapiens stress-induced-phosphoprotein 1 (Hsp70/Hsp90-organizing protein) (STIP1), mRNA |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4191 | 14091 | 23869 | 1.02 | 2.0E-92 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 4648 | 14534 | 24323 | 0.79 | 2.0E-92 | AF136523.1 | NT | Homo sapiens bile salt export pump (BSEP) mRNA, complete cds |
| 4922 | 14801 | | 2.53 | 2.0E-92 | AL040437.1 | EST_HUMAN | DKFZp434C0414.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C0414.5' |
| 5989 | 15894 | 26017 | 2.49 | 2.0E-92 | AB028991.1 | NT | Homo sapiens mRNA for KIAA1068 protein, partial cds |
| 6420 | 16273 | | 2.25 | 2.0E-92 | U67780.1 | NT | Human NPY Y1-like receptor pseudogene mRNA, complete cds |
| 7141 | 17018 | 27211 | 1.37 | 2.0E-92 | AW340174.1 | EST_HUMAN | hd02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2908371 3' similar to TR:002711 |
| 8142 | 18030 | 28276 | 5.91 | 2.0E-92 | 11434900 | NT | Homo sapiens thyroid stimulating hormone receptor (TSHR), mRNA |
| 9589 | 19172 | 26274 | 2.55 | 2.0E-92 | AB029016.1 | NT | Homo sapiens mRNA for KIAA1093 protein, partial cds |
| 9839 | 12491 | 22381 | 26.65 | 2.0E-92 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1807 | 11704 | 21582 | 1.11 | 1.0E-92 | R78078.1 | EST_HUMAN | y80e08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145574.5' |
| 1807 | 11704 | 21583 | 1.11 | 1.0E-92 | R78078.1 | EST_HUMAN | y80e08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145574.5' |
| 2028 | 11919 | 21810 | 34.72 | 1.0E-92 | 4506668 | NT | Homo sapiens ribosomal protein, large, P1 (RPLP1) mRNA |
| 7286 | 17162 | 27360 | 4.04 | 1.0E-92 | A1380356.1 | EST_HUMAN | tg01b02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ;contains Alu repetitive element;contains element MER17 repetitive element ; |
| 7286 | 17162 | 27361 | 4.04 | 1.0E-92 | A1380356.1 | EST_HUMAN | tg01b02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ;contains Alu repetitive element;contains element MER17 repetitive element ; |
| 1993 | 11876 | 21769 | 3.14 | 9.0E-93 | AU121681.1 | EST_HUMAN | AU121681 MAMMA1 Homo sapiens cDNA clone MAMMA1000738.5' |
| 1996 | 11890 | | 9.21 | 9.0E-93 | AA316723.1 | EST_HUMAN | EST188414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29 |
| 2610 | 12478 | | 1.46 | 9.0E-93 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 3563 | 13477 | 23267 | 0.96 | 9.0E-93 | BE388571.1 | EST_HUMAN | 601281867F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3603832 5' |
| 8911 | 18719 | | 9.8 | 9.0E-93 | 11418526 | NT | Homo sapiens ribosomal protein L10a (RPL10A), mRNA |
| 5975 | 15879 | 26003 | 2.49 | 8.0E-93 | BF036364.1 | EST_HUMAN | 601460521F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863908 5' |
| 246 | 10212 | 20028 | 6.24 | 7.0E-93 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1359 | 11265 | 21121 | 1.25 | 5.0E-93 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 1395 | 11290 | 21145 | 5.39 | 5.0E-93 | A1674184.1 | EST_HUMAN | wc09c08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2314670 3' |
| 1395 | 11290 | 21146 | 5.39 | 5.0E-93 | A1674184.1 | EST_HUMAN | wc09c08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2314670 3' |
| 1459 | 11364 | | 0.95 | 5.0E-93 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3195 | 13120 | 22925 | 2.42 | 5.0E-93 | X04201.1 | NT | Human skeletal muscle 1.3 kb mRNA for tropomyosin |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6540 | 16398 | 26577 | 3.67 | 5.0E-93 | AF067136.1 | NT | Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 11, complete cds and alternatively spliced product |
| 7549 | 17400 | 27613 | 2.07 | 5.0E-93 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 7644 | 17494 | 27715 | 1.31 | 5.0E-93 | 5032156 | NT | Homo sapiens TAR (HIV) RNA-binding protein 1 (TARBP1) mRNA |
| 8200 | 18085 | 28336 | 3.01 | 5.0E-93 | 11439599 | NT | Homo sapiens nucleobindin 2 (NUCB2), mRNA |
| 9487 | 19423 | 25173 | 1.84 | 5.0E-93 | 11417877 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA |
| 82 | 10066 | | 4.72 | 4.0E-93 | AA459933.1 | EST_HUMAN | z60e09.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:795888 3' similar to SW:CLPA_RAT P37997 CALPONIN, ACIDIC ISOFORM ; |
| 437 | 10381 | 20204 | 1.75 | 4.0E-93 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 437 | 10381 | 20205 | 1.75 | 4.0E-93 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 755 | 10685 | 20522 | 1.33 | 4.0E-93 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 755 | 10685 | 20523 | 1.33 | 4.0E-93 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 1166 | 11078 | 20923 | 2.08 | 4.0E-93 | 8923658 | NT | Homo sapiens hypothetical protein FLJ20731 (FLJ20731), mRNA |
| 1934 | 11829 | 21712 | 5.05 | 4.0E-93 | AF047677.1 | NT | Homo sapiens dystrophin (DMD) gene, deletion breakpoints 1-3 in intron 5 |
| 2349 | 12229 | 22126 | 0.84 | 4.0E-93 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 2564 | 12435 | 22328 | 2.18 | 4.0E-93 | 7656972 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 3962 | 13869 | 23647 | 1.44 | 4.0E-93 | 4504654 | NT | Homo sapiens interleukin 18 receptor 1 (IL18R1) mRNA |
| 5465 | 15385 | 25445 | 4.81 | 4.0E-93 | T46864.1 | EST_HUMAN | y04c12.1 Strategene liver (#937224) Homo sapiens cDNA clone IMAGE:78838 5' similar to similar to SP:A44391 A44391 SERUM RESPONSE ELEMENT-BINDING PROTEIN SRE-ZBP - HUMAN , |
| 8475 | 18348 | 28613 | 19.24 | 4.0E-93 | AV692051.1 | EST_HUMAN | AV692051 GKC Homo sapiens cDNA clone GKCDRF07 5' |
| 3601 | 13515 | 23302 | 5.99 | 3.0E-93 | BF690630.1 | EST_HUMAN | 602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332036 5' |
| 3601 | 13515 | 23303 | 5.99 | 3.0E-93 | BF690630.1 | EST_HUMAN | 602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332036 5' |
| 4142 | 14042 | | 2.7 | 3.0E-93 | AF225896.1 | NT | Homo sapiens tensin mRNA, complete cds |
| 5535 | 15452 | 25520 | 1.58 | 3.0E-93 | AI553853.1 | EST_HUMAN | tn29g03.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2169076 3' |
| 5535 | 15452 | 25521 | 1.59 | 3.0E-93 | AI553953.1 | EST_HUMAN | tn29g03.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2169076 3' |
| 5952 | 15857 | 25979 | 1.32 | 3.0E-93 | 11426182 | NT | Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA |
| 8178 | 18066 | 28314 | 4.15 | 3.0E-93 | AI824829.1 | EST_HUMAN | w602d05.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2304489 3' |
| 183 | 10155 | 19970 | 8.31 | 2.0E-93 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |
| 183 | 10155 | 19971 | 8.31 | 2.0E-93 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |
| 320 | 10282 | 20100 | 6.69 | 2.0E-93 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 321 | 10282 | 20100 | 7.68 | 2.0E-93 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1508 | 11503 | 21363 | 1.48 | 2.0E-93 | AF225896.1 | NT | Homo sapiens tensin mRNA, complete cds |
| 2083 | 11973 | 21868 | 1.02 | 2.0E-93 | U40763.1 | NT | Human Cdk-associated RS cyclophilin CARS-Cyp mRNA, complete cds |
| 2436 | 12313 | 22210 | 0.89 | 2.0E-93 | BE252982.1 | EST_HUMAN | 601117866F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3358220 5' |
| 5088 | 14968 | 24732 | 1.02 | 2.0E-93 | BE253201.1 | EST_HUMAN | 601116810F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357243 5' |
| 5325 | 15245 | 25049 | 4.59 | 2.0E-93 | AW964385.1 | EST_HUMAN | EST376458 MAGE resequencing, MAGH Homo sapiens cDNA |
| 5462 | 15382 | 25442 | 1.52 | 2.0E-93 | 11430039 | NT | Homo sapiens hypothetical protein (LOC51318), mRNA |
| 6014 | 15918 | | 1.32 | 2.0E-93 | AW502002.1 | EST_HUMAN | U1HF-BNO-aks-g-09-0-ULr1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078329 5' |
| 8996 | 19476 | 28093 | 2.87 | 2.0E-93 | AI312025.1 | EST_HUMAN | qp78b10.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1929115 3' |
| 9386 | 19046 | | 1.52 | 2.0E-93 | AA126735.1 | EST_HUMAN | 229c10.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503346 3' |
| 9485 | 19095 | | 1.31 | 2.0E-93 | L41825.1 | NT | Homo sapiens CYP17 gene, 5' end |
| 9724 | 19263 | | 2.75 | 2.0E-93 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 96 | 10081 | 19897 | 1.64 | 1.0E-93 | AF238997.1 | NT | Homo sapiens CTR1 pseudogene |
| 96 | 10081 | 19898 | 1.64 | 1.0E-93 | AF238997.1 | NT | Homo sapiens CTR1 pseudogene |
| 507 | 10449 | 20262 | 2.56 | 1.0E-93 | 7657016 | NT | Homo sapiens hypothetical protein (DJ328E19.C1.1), mRNA |
| 585 | 10523 | 20330 | 3.75 | 1.0E-93 | AI146755.1 | EST_HUMAN | oy84b08.x1 NCLCGAP_CLL1 Homo sapiens cDNA clone IMAGE:1672503 3' similar to TR:Q62384 Q62384 ZINC FINGER PROTEIN ; |
| 854 | 10781 | 20631 | 3.32 | 1.0E-93 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 1217 | 11125 | 20974 | 6.41 | 1.0E-93 | 8923270 | NT | Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA |
| 1217 | 11125 | 20975 | 6.41 | 1.0E-93 | 8923270 | NT | Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA |
| 1321 | 11228 | 21083 | 1.55 | 1.0E-93 | AE046783.1 | NT | Homo sapiens mRNA for KIAA1563 protein, partial cds |
| 1323 | 11230 | 21085 | 1.68 | 1.0E-93 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds |
| 2289 | 12172 | 22070 | 1.01 | 1.0E-93 | AF231981.1 | NT | Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds |
| 2415 | 12292 | 22190 | 4.16 | 1.0E-93 | AF055069.1 | NT | Homo sapiens MHC class 1 region |
| 2499 | 12336 | | 1.09 | 1.0E-93 | AL137200.1 | NT | Novel human gene mapping to chromosome 1 |
| 2792 | 11181 | 21030 | 2.69 | 1.0E-93 | BE297369.1 | EST_HUMAN | 601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532965 5' |
| 2792 | 11181 | 21031 | 2.69 | 1.0E-93 | BE297369.1 | EST_HUMAN | 601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532965 5' |
| 2903 | 12830 | 22627 | 4.33 | 1.0E-93 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4331 | 14228 | 24010 | 1.44 | 1.0E-93 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5417 | 15338 | 25391 | 1.62 | 1.0E-93 | U78509.1 | NT | Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E |
| 5417 | 15338 | 25392 | 1.62 | 1.0E-93 | U78509.1 | NT | Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E |
| 5607 | 15522 | 25604 | 9.15 | 1.0E-93 | 4557792 | NT | Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1) mRNA |
| 6067 | 16051 | 26197 | 2.06 | 1.0E-93 | 11431590 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6299 | 16163 | 26320 | 4.09 | 1.0E-93 | D42072.1 | NT | Human mRNA for NF1 N-isoform-exon11, complete cds |
| 6807 | 16896 | 28876 | 2.04 | 1.0E-93 | A5037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 6971 | 16848 | 27039 | 1.18 | 1.0E-93 | Y10183.1 | NT | H. sapiens mRNA for MEMD protein |
| 7024 | 16901 | 27093 | 1.59 | 1.0E-93 | AF182032.1 | NT | Homo sapiens protein kinase inhibitor gamma (PKIG) mRNA, complete cds |
| 7437 | 16450 | 26640 | 1.8 | 1.0E-93 | A5040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 7440 | 16453 | 26643 | 1.22 | 1.0E-93 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 7529 | 17380 | 27589 | 4.54 | 1.0E-93 | X13474.1 | NT | Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9) |
| 7529 | 17380 | 27590 | 4.54 | 1.0E-93 | X13474.1 | NT | Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9) |
| 9051 | 19494 | 25132 | 5.92 | 1.0E-93 | AI268262.1 | EST_HUMAN | gm03c12.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1880758 3' similar to WP.T19B4.4 CE13742; |
| 9716 | 19257 | | 2.33 | 1.0E-93 | 11417856 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA |
| 8025 | 17875 | | 1.22 | 8.0E-94 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 3880 | 13791 | 23579 | 1.74 | 6.0E-94 | AF142482.1 | NT | Homo sapiens transcription enhancer factor-5 mRNA, complete cds |
| 9830 | 19331 | | 1.67 | 6.0E-94 | 11418351 | NT | Homo sapiens mitogen-activated protein kinase 12 (MAPK12), mRNA |
| 5296 | 15217 | 25019 | 3.05 | 5.0E-94 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 5296 | 15217 | 25020 | 3.05 | 5.0E-94 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 5699 | 15598 | 25699 | 1.72 | 5.0E-94 | AA722434.1 | EST_HUMAN | z987g06.s1 Scars_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:409594 3' |
| 6193 | 16069 | 26218 | 1.63 | 5.0E-94 | A015800.1 | EST_HUMAN | ct83d05.s1 Scars_fetal_heart_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1623369 3' |
| 9361 | 19378 | 24911 | 4.68 | 5.0E-94 | T89398.1 | EST_HUMAN | yd98b04.s1 Scars_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:116239 3' |
| 9901 | 19378 | | 1.27 | 5.0E-94 | D25217.2 | NT | Homo sapiens mRNA for KIAA0027 protein, partial cds |
| 9907 | 19384 | | 1.26 | 5.0E-94 | 9558724 | NT | Homo sapiens cleavage and polyadenylation specific factor 1, 160kD subunit (CPSF1), mRNA |
| 1799 | 11697 | | 4.55 | 4.0E-94 | L05094.1 | NT | Homo sapiens ribosomal protein L27 mRNA, complete cds |
| 2621 | 12489 | 22379 | 0.86 | 4.0E-94 | 4506003 | NT | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA |
| 4618 | 14506 | 24295 | 3.02 | 4.0E-94 | AI591312.1 | EST_HUMAN | tw11f10.x1 NCI_CGAP_Brm52 Homo sapiens cDNA clone IMAGE:2259403 3' similar to TR:Q15265 Q15265 PROTEIN TYROSINE PHOSPHATASE; |
| 5892 | 15798 | 25921 | 1.84 | 4.0E-94 | 11440670 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA |
| 5892 | 15798 | 25922 | 1.84 | 4.0E-94 | 11440670 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA |
| 8749 | 17898 | 28142 | 1.72 | 4.0E-94 | 11545792 | NT | Homo sapiens hypothetical protein FLJ12455 (FLJ12455), mRNA |
| 595 | 10531 | 20339 | 1.17 | 3.0E-94 | AB022785.1 | NT | Homo sapiens ASH2L gene, complete cds, similar to Drosophila ash2 gene |
| 704 | 10637 | 20462 | 1.17 | 3.0E-94 | 4502506 | NT | Homo sapiens complement component 5 (C5) mRNA |
| 1706 | 11607 | 21477 | 1.05 | 3.0E-94 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1706 | 11607 | 21478 | 1.05 | 3.0E-94 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1735 | 11636 | 21504 | 3.45 | 3.0E-94 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 4095 | 13995 | 23772 | 0.82 | 3.0E-94 | AA464805.1 | EST_HUMAN | zw63g08.1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:774782 5' |
| 5494 | 15403 | 25466 | 3.58 | 3.0E-94 | 11496268 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 5881 | 15787 | 25909 | 4.16 | 3.0E-94 | 11526228 | NT | Homo sapiens chromosome 21 open reading frame 18 (C21ORF18), mRNA |
| 6771 | 16650 | 26838 | 1.16 | 3.0E-94 | AF152309.1 | NT | Homo sapiens protocadherin alpha 13 (PCDH-alpha13) mRNA, complete cds |
| 6992 | 16869 | 27062 | 3.79 | 3.0E-94 | AB014579.1 | NT | Homo sapiens mRNA for KIAA0679 protein, partial cds |
| 7533 | 17384 | 27596 | 4.36 | 3.0E-94 | AF087942.1 | NT | Homo sapiens glycogenin-1L mRNA, complete cds |
| 8448 | 18321 | 28580 | 1.75 | 3.0E-94 | 4757821 | NT | Homo sapiens axonal transport of synaptic vesicles (ATSV) mRNA |
| 8928 | 18736 | 29029 | 2.27 | 3.0E-94 | U26711.1 | NT | Human cbl-b truncated form 1 lacking leucine zipper mRNA, complete cds |
| 143 | 10117 | 19937 | 2.24 | 1.0E-94 | BE295714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 3050 | 12977 | 22769 | 1.91 | 1.0E-94 | BE253433.1 | EST_HUMAN | 601111696F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:352559 5' |
| 3050 | 12977 | 22770 | 1.91 | 1.0E-94 | BE253433.1 | EST_HUMAN | 601111696F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:352559 5' |
| 4261 | 14160 | 23938 | 1.13 | 1.0E-94 | 9506692 | NT | Homo sapiens hypothetical protein (FLJ20746), mRNA |
| 7331 | 17235 | 27439 | 1.93 | 1.0E-94 | 11428710 | NT | Homo sapiens paired box gene 5 (B-cell lineage specific activator protein) (PAX5), mRNA |
| 7636 | 17487 | 27707 | 1.41 | 1.0E-94 | BE780478.1 | EST_HUMAN | 601468748F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872099 5' |
| 8418 | 18292 | 28546 | 2.49 | 1.0E-94 | U65590.1 | NT | Homo sapiens IL-1 receptor antagonist IL-1Ra (IL-1RN) gene, alternatively spliced forms, complete cds |
| 8635 | 18500 | 28775 | 2.19 | 1.0E-94 | A1272244.1 | EST_HUMAN | ap22e02.x1 Schiller oligodendroglioma Homo sapiens cDNA clone IMAGE:1956122 3' similar to TR:Q62845 |
| 9759 | 10117 | 19937 | 1.98 | 1.0E-94 | BE295714.1 | EST_HUMAN | Q62845 NEURAL CELL ADHESION PROTEIN BIG-2 PRECURSOR. ; |
| 1461 | 11366 | 21230 | 1.55 | 9.0E-95 | AF027302.1 | NT | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 3118 | 13043 | 22839 | 1.13 | 9.0E-95 | 7662027 | NT | Homo sapiens TNF-alpha stimulated ABC protein (ABC50) mRNA, complete cds |
| 3118 | 13043 | 22840 | 1.13 | 9.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 6801 | 16680 | 28869 | 1.87 | 9.0E-95 | AF274763.1 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 4436 | 14331 | 24119 | 1.59 | 8.0E-95 | A1700998.1 | EST_HUMAN | Homo sapiens progressive ankylosis-like protein (ANK) mRNA, complete cds |
| 4436 | 14331 | 24120 | 1.59 | 8.0E-95 | A1700998.1 | EST_HUMAN | we09e04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340606 3' similar to gb:K00558 |
| 6294 | 16158 | 26314 | 1.83 | 8.0E-95 | 11426529 | NT | TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 6294 | 16158 | 26315 | 1.83 | 8.0E-95 | 11426529 | NT | we09e04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340606 3' similar to gb:K00558 |
| 6770 | 16649 | 26837 | 2.05 | 8.0E-95 | AF032897.1 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA |
| 7331 | 17309 | 27515 | 1.73 | 8.0E-95 | 11420944 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA |
| 7331 | 17309 | 27516 | 1.73 | 8.0E-95 | 11420944 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 7667 | 17517 | 27744 | 2.92 | 8.0E-95 | 5174644 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| | | | | | | | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7681 | 17531 | | 2.83 | 8.0E-95 | AB037816.1 | NT | Homo sapiens mRNA for KIAA1395 protein, partial cds |
| 8096 | 17987 | 28236 | 2.41 | 8.0E-95 | AF112152.1 | NT | Homo sapiens developmental arteries and neural crest EGF-like protein mRNA, complete cds |
| 9689 | 19242 | | 8.68 | 8.0E-95 | AA629056.1 | EST_HUMAN | zu84b01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:744649 3' similar to contains L1.1f L1 repetitive element ; |
| 274 | 10240 | 20058 | 9.46 | 7.0E-95 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 274 | 10240 | 20059 | 9.46 | 7.0E-95 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4270 | 14169 | 23947 | 5.94 | 7.0E-95 | M95708.1 | NT | Homo sapiens Ly-6-like protein (CD59) mRNA, complete cds |
| 4316 | 14213 | | 1.38 | 7.0E-95 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 4982 | 14857 | 24623 | 1.03 | 7.0E-95 | M95929.1 | NT | Human homeobox protein (PHOX1) mRNA, 3' end |
| 5340 | 15261 | 25087 | 1.76 | 3.0E-95 | BF528041.1 | EST_HUMAN | 602071146f1 NCL_CGAP_Bm84 Homo sapiens cDNA clone IMAGE:4214147 5' |
| 922 | 10847 | 20694 | 0.86 | 2.0E-95 | 4504374 | NT | Homo sapiens H factor 1 (complement) (HF1) mRNA |
| 1625 | 11529 | 21387 | 1.6 | 2.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 1625 | 11529 | 21388 | 1.6 | 2.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 1897 | 11793 | 21672 | 7.79 | 2.0E-95 | 4507512 | NT | Homo sapiens tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA |
| 1900 | 11796 | 21676 | 3.3 | 2.0E-95 | BE393873.1 | EST_HUMAN | 601312161F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658862 5' |
| 2376 | 12256 | 22147 | 1.3 | 2.0E-95 | 5453665 | NT | Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA |
| 2376 | 12256 | 22148 | 1.3 | 2.0E-95 | 5453665 | NT | Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA |
| 2417 | 12294 | 22191 | 16.55 | 2.0E-95 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2466 | 12342 | 22235 | 2.46 | 2.0E-95 | 4759423 | NT | Homo sapiens glycine cleavage system protein H (aminomethyl carrier) (GCSH) mRNA |
| 2767 | 10846 | 20693 | 0.86 | 2.0E-95 | 4504374 | NT | Homo sapiens H factor 1 (complement) (HF1) mRNA |
| 3120 | 13045 | 22842 | 3.51 | 2.0E-95 | AF015452.1 | NT | Homo sapiens Usurpin-gamma mRNA, complete cds |
| 3517 | 13433 | 23232 | 2.78 | 2.0E-95 | 7705900 | NT | Homo sapiens unconventional myosin-15 (LOC51168), mRNA |
| 3517 | 13433 | 23233 | 2.78 | 2.0E-95 | 7705900 | NT | Homo sapiens unconventional myosin-15 (LOC51168), mRNA |
| 3565 | 13479 | 23268 | 0.96 | 2.0E-95 | AB037807.1 | NT | Homo sapiens mRNA for KIAA1386 protein, partial cds |
| 3690 | 13604 | 23390 | 1.02 | 2.0E-95 | AI290294.1 | EST_HUMAN | qm01c02.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1880546 3' similar to WP:T23G7.4 CE03705 ; |
| 4264 | 14163 | 23940 | 2.3 | 2.0E-95 | 7657185 | NT | Homo sapiens hypothetical protein (HS322B1A), mRNA |
| 4971 | 14846 | 24615 | 2.57 | 2.0E-95 | 7661979 | NT | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 5022 | 14895 | 24663 | 0.98 | 2.0E-95 | AA447931.1 | EST_HUMAN | zx11d07.r1 Soares_totat_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:786157 5' |
| 5022 | 14895 | 24664 | 0.98 | 2.0E-95 | AA447931.1 | EST_HUMAN | zx11d07.r1 Soares_totat_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:786157 5' |
| 5367 | 15287 | 25121 | 3.69 | 2.0E-95 | 7705764 | NT | Homo sapiens CGI-48 protein (LOC51096), mRNA |
| 5367 | 15287 | 25122 | 3.69 | 2.0E-95 | 7705764 | NT | Homo sapiens CGI-48 protein (LOC51096), mRNA |

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|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 5734 | 15642 | 25748 | 4.54 | 2.0E-95 | M59724.1 | NT | Human muscle-type phosphofructokinase (PFK-M) gene, exon 7 |
| 5957 | 15862 | 25984 | 2.25 | 2.0E-95 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 6055 | 16038 | 26179 | 1.62 | 2.0E-95 | 11435773 | NT | Homo sapiens huntingtin (Huntington disease) (HD), mRNA |
| 8106 | 17996 | 28245 | 2.36 | 2.0E-95 | 4757853 | NT | Homo sapiens bone morphogenetic protein receptor, type IA (BMPRIIA) mRNA |
| 9452 | 19084 | 25285 | 1.98 | 2.0E-95 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 9840 | 19338 | 25211 | 4.34 | 2.0E-95 | 11418164 | NT | Homo sapiens adenylosuccinate lyase (ADSL), mRNA |
| 5450 | 15371 | 25427 | 7.73 | 1.0E-95 | AA284651.1 | EST_HUMAN | z23h04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to TR:G1067084 G1067084 F55H2.6 ; |
| 5450 | 15371 | 25428 | 7.73 | 1.0E-95 | AA284651.1 | EST_HUMAN | z23h04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to TR:G1067084 G1067084 F55H2.6 ; |
| 6437 | 16298 | 26460 | 4.85 | 1.0E-95 | BF370000.1 | EST_HUMAN | RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA |
| 6437 | 16298 | 26461 | 4.85 | 1.0E-95 | BF370000.1 | EST_HUMAN | RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA |
| 6767 | 16646 | 26835 | 1.67 | 9.0E-96 | BE897259.1 | EST_HUMAN | 601437232F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922423 5' |
| 435 | 12666 | 20201 | 0.82 | 8.0E-96 | BE907607.1 | EST_HUMAN | 601497608F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899761 5' |
| 435 | 12666 | 20202 | 0.82 | 8.0E-96 | BE907607.1 | EST_HUMAN | 601497608F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899761 5' |
| 5383 | 15302 | | 2.66 | 8.0E-96 | AW836047.1 | EST_HUMAN | PM0-L T0019-090300-002-d09 L T0019 Homo sapiens cDNA |
| 3834 | 13746 | 23538 | 0.95 | 7.0E-96 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 2213 | 12099 | 22003 | 0.85 | 6.0E-96 | BE171984.1 | EST_HUMAN | MR0-HT0559-250200-002-d07 HT0559 Homo sapiens cDNA |
| 3276 | 13197 | 22997 | 0.96 | 6.0E-96 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3437 | 13354 | 23159 | 26.15 | 6.0E-96 | M26873.1 | NT | Human glyceraldehyde-3-phosphate dehydrogenase pseudogene 3' end |
| 8831 | 18644 | 28927 | 1.98 | 6.0E-96 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 8831 | 18644 | 28928 | 1.98 | 6.0E-96 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 8870 | 18682 | 28972 | 2.09 | 6.0E-96 | 8923339 | NT | Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA |
| 317 | 10279 | 20096 | 2.7 | 5.0E-96 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 824 | 10751 | 20599 | 3.06 | 5.0E-96 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 824 | 10751 | 20600 | 3.06 | 5.0E-96 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 2576 | 12447 | | 2.31 | 5.0E-96 | 11416767 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2991 | 12919 | 22713 | 0.98 | 5.0E-96 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 4810 | 14694 | | 1.22 | 5.0E-96 | X60812.1 | NT | H.sapiens DNA for monamine oxidase type A (7) (partial) |
| 6065 | 16048 | 26193 | 4.23 | 5.0E-96 | 11424399 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 6065 | 16048 | 26194 | 4.23 | 5.0E-96 | 11424399 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 6719 | 16599 | 26788 | 1.81 | 5.0E-96 | M68347.1 | NT | Human type IV collagenase (CLG4B) gene, exon 5 |
| 6719 | 16599 | 26789 | 1.81 | 5.0E-96 | M68347.1 | NT | Human type IV collagenase (CLG4B) gene, exon 5 |

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|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 4097 | 13997 | | 6.22 | 3.0E-96 | H68656.1 | EST_HUMAN | yr87h12.1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:212327 5' |
| 409 | 10355 | | 3.49 | 2.0E-96 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 730 | 10662 | 20494 | 1.56 | 2.0E-96 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 4651 | 14537 | 24326 | 1.58 | 2.0E-96 | BE148074.1 | EST_HUMAN | RC3-HT0230-040500-110-g02 HT0230 Homo sapiens cDNA |
| 7191 | 17068 | | 5.08 | 2.0E-96 | AV689461.1 | EST_HUMAN | AV689461 GKC Homo sapiens cDNA clone GKCFMD07 5' |
| 9151 | 18902 | | 2.05 | 2.0E-96 | AW249440.1 | EST_HUMAN | 2819351.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819351 5' |
| 655 | 10590 | 20408 | 1.69 | 1.0E-96 | Y18890.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 1742 | 11643 | 21510 | 2.03 | 1.0E-96 | AW955054.1 | EST_HUMAN | EST367124 MAGC resequences, MAGC Homo sapiens cDNA |
| 1742 | 11643 | 21511 | 2.03 | 1.0E-96 | AW955054.1 | EST_HUMAN | EST367124 MAGC resequences, MAGC Homo sapiens cDNA |
| 1806 | 11703 | 21580 | 0.89 | 1.0E-96 | 4503756 | NT | Homo sapiens flavin containing monooxygenase 2 (FMO2) mRNA |
| 1806 | 11703 | 21581 | 0.89 | 1.0E-96 | 4503756 | NT | Homo sapiens flavin containing monooxygenase 2 (FMO2) mRNA |
| 2181 | 12068 | 21969 | 1.33 | 1.0E-96 | M75967.1 | NT | Human hepatocyte growth factor gene, exon 1 |
| 2181 | 12068 | 21970 | 1.33 | 1.0E-96 | M75967.1 | NT | Human hepatocyte growth factor gene, exon 1 |
| 2219 | 12650 | 22009 | 1.88 | 1.0E-96 | U51472.2 | NT | Felis catus superfast myosin heavy chain (sMyHC) mRNA, complete cds |
| 7058 | 16935 | 27125 | 20.65 | 1.0E-96 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 7138 | 17015 | 27208 | 1.98 | 1.0E-96 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 7843 | 17693 | 27938 | 1.64 | 1.0E-96 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 7843 | 17693 | 27939 | 1.64 | 1.0E-96 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 3285 | 13206 | 23006 | 0.95 | 6.0E-97 | BF245240.1 | EST_HUMAN | 601863712F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4081202 5' |
| 6459 | 16319 | | 2.75 | 6.0E-97 | BE141849.1 | EST_HUMAN | IL5-HT0117-011099-004-D07 HT0117 Homo sapiens cDNA |
| 6672 | 16552 | 26747 | 1.76 | 5.0E-97 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 494 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 6735 | 16614 | 26804 | 10.79 | 5.0E-97 | AA418026.1 | EST_HUMAN | zv97e12.s1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:767758 3' similar to TR:G1304125 |
| 7578 | 17429 | 27643 | 2.76 | 5.0E-97 | BF154912.1 | EST_HUMAN | G1304125 PMS4 MRNA ; |
| 8832 | 18645 | 28929 | 1.87 | 5.0E-97 | BE148597.1 | EST_HUMAN | RC0-BT0812-250900-032-a09 BT0812 Homo sapiens cDNA |
| 8832 | 18645 | 28930 | 1.87 | 5.0E-97 | BE148597.1 | EST_HUMAN | MRO-HT0241-150500-010-b02 HT0241 Homo sapiens cDNA |
| 924 | 10849 | 20697 | 1.26 | 4.0E-97 | BE004436.1 | EST_HUMAN | MRO-HT0241-150500-010-b02 HT0241 Homo sapiens cDNA |
| 1868 | 11764 | 21638 | 1.08 | 4.0E-97 | 5453572 | NT | CMO-BN0108-170300-293-a06 BN0106 Homo sapiens cDNA |
| 6082 | 16027 | 26167 | 6.1 | 4.0E-97 | Y11339.2 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 6082 | 16027 | 26168 | 6.1 | 4.0E-97 | Y11339.2 | NT | Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase 1, long form |
| 6867 | 16746 | 26939 | 1.41 | 4.0E-97 | 11421793 | NT | Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase 1, long form |
| 7328 | 17232 | 27433 | 1.17 | 4.0E-97 | AB011166.1 | NT | Homo sapiens v-src avian sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (SRC), mRNA |
| | | | | | | | Homo sapiens mRNA for KIAA0594 protein, partial cds |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7328 | 17232 | 27434 | 1.17 | 4.0E-97 | AB01166.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 8503 | 18376 | 28641 | 1.76 | 4.0E-97 | 11863122 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA |
| 8503 | 18376 | 28642 | 1.76 | 4.0E-97 | 11863122 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA |
| 8733 | 17882 | 28124 | 15.68 | 4.0E-97 | AB042557.1 | NT | Homo sapiens mRNA, similar to rat myomegalin, complete cds |
| 8736 | 17885 | 28128 | 2.31 | 4.0E-97 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 8736 | 17885 | 28129 | 2.31 | 4.0E-97 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 9331 | 19012 | | 3.83 | 4.0E-97 | 11418318 | NT | Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA |
| 243 | 10210 | 20026 | 1.17 | 3.0E-97 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 856 | 10783 | 20633 | 10.96 | 3.0E-97 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 856 | 10783 | 20634 | 10.96 | 3.0E-97 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 1423 | 12894 | 21195 | 1.77 | 3.0E-97 | 4758813 | NT | Homo sapiens N-myc (and STAT) interactor (NMI), mRNA |
| 2889 | 12652 | 22161 | 1.92 | 3.0E-97 | U36255.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 7 |
| 3223 | 13147 | 22948 | 1.14 | 3.0E-97 | 5174478 | NT | Homo sapiens pericentrin (PCNT) mRNA |
| 4670 | 14556 | 24349 | 12.55 | 1.0E-97 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 5872 | 15778 | 25897 | 2.19 | 1.0E-97 | BE566486.1 | EST_HUMAN | 601339520F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3681821 5' |
| 8088 | 17979 | 28229 | 3.41 | 1.0E-97 | 11427757 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 8088 | 17979 | 28230 | 3.41 | 1.0E-97 | 11427757 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 8629 | 18494 | 28768 | 2.82 | 1.0E-97 | AA553761.1 | EST_HUMAN | tk29g02.s1 NC1 CGAP Co11 Homo sapiens cDNA clone IMAGE:1014962 3' |
| 8763 | 17912 | 28156 | 13.54 | 1.0E-97 | 11426272 | NT | Homo sapiens ribosomal protein S15 (RPS15), mRNA |
| 8763 | 17912 | 28157 | 13.54 | 1.0E-97 | 11426272 | NT | Homo sapiens ribosomal protein S15 (RPS15), mRNA |
| 883 | 10809 | 20658 | 8 | 9.0E-98 | BE090973.1 | EST_HUMAN | PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA |
| 1255 | 11162 | 21012 | 1.29 | 9.0E-98 | 8393092 | NT | Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA |
| 6623 | 16503 | 26691 | 4.74 | 9.0E-98 | 4758119 | NT | Homo sapiens death-associated protein (DAP), mRNA |
| 6623 | 16503 | 26692 | 4.74 | 9.0E-98 | 4758119 | NT | Homo sapiens death-associated protein (DAP), mRNA |
| 7271 | 17148 | 27342 | 2.77 | 9.0E-98 | X06989.1 | NT | Human mRNA for amyloid A4(751) protein |
| 7319 | 17195 | 27395 | 2.41 | 9.0E-98 | 11321580 | NT | Homo sapiens succinate-CoA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA |
| 7355 | 17223 | 27423 | 1.39 | 9.0E-98 | AB037786.1 | NT | Homo sapiens mRNA for KIAA1365 protein, partial cds |
| 8369 | 18246 | 28497 | 2.24 | 9.0E-98 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 8369 | 18246 | 28498 | 2.24 | 9.0E-98 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 9345 | 10809 | 20658 | 4.97 | 9.0E-98 | BE090973.1 | EST_HUMAN | PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA |
| 1350 | 11256 | 21112 | 0.89 | 8.0E-98 | AB033768.1 | NT | Homo sapiens hPAD-colony10 mRNA for peptidylarginine deiminase type I, complete cds |
| 1340 | 11444 | 21303 | 1.04 | 8.0E-98 | 5031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1540 | 11444 | 21304 | 1.04 | 8.0E-98 | 5031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 1695 | 11597 | 21468 | 0.98 | 8.0E-98 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 1695 | 11597 | 21469 | 0.98 | 8.0E-98 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 3726 | 13638 | 23424 | 5.03 | 8.0E-98 | J04469.1 | NT | Human mitochondrial creatine kinase (CKMT) gene, complete cds |
| 5049 | 14921 | | 0.88 | 8.0E-98 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 9717 | 19258 | 25220 | 1.29 | 4.0E-98 | BE348727.1 | EST_HUMAN | ht68f02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3151899 3' |
| 2131 | 12019 | 21917 | 1.21 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone l8 |
| 2565 | 12436 | 22329 | 1.85 | 3.0E-98 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 2720 | 12582 | | 2.09 | 3.0E-98 | AA077498.1 | EST_HUMAN | 7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01 |
| 6147 | 16020 | 26159 | 1.7 | 3.0E-98 | 11419210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 6147 | 16020 | 26160 | 1.7 | 3.0E-98 | 11419210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 7083 | 16960 | 27153 | 3.31 | 3.0E-98 | H46698.1 | EST_HUMAN | yc1709.1 Scores adult brain N2b5fHB55Y Homo sapiens cDNA clone IMAGE:178240 5' |
| 7685 | 17535 | 27759 | 1.6 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone l8 |
| 7685 | 17535 | 27760 | 1.6 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone l8 |
| 8322 | 18199 | 28448 | 5.15 | 3.0E-98 | U59309.1 | NT | Human fumarylase precursor (FH) mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 9895 | 19373 | | 2.47 | 3.0E-98 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 2033 | 11924 | 21816 | 29.05 | 2.0E-98 | BE294281.1 | EST_HUMAN | 601172658F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3528134 5' |
| 2191 | 12078 | 21983 | 1.45 | 2.0E-98 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 4199 | 14099 | 23880 | 0.96 | 2.0E-98 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 4244 | 14143 | 23916 | 4.94 | 2.0E-98 | 4758331 | NT | Homo sapiens fatty-acid-Coenzyme A ligase, long-chain 4 (FACL4) mRNA |
| 4720 | 14606 | 24390 | 1.51 | 2.0E-98 | AF218902.1 | NT | Homo sapiens attractin precursor (ATRIN) gene, exon 16 |
| 4720 | 14606 | 24391 | 1.51 | 2.0E-98 | AF218902.1 | NT | Homo sapiens attractin precursor (ATRIN) gene, exon 16 |
| 5069 | 14939 | 24711 | 6.39 | 2.0E-98 | 9055269 | NT | Homo sapiens low density lipoprotein receptor protein-deleted in tumor (LRPDI1), mRNA |
| 5069 | 14939 | 24712 | 6.39 | 2.0E-98 | 9055269 | NT | Homo sapiens low density lipoprotein receptor related protein-deleted in tumor (LRPDI1), mRNA |
| 5163 | 15029 | 24795 | 1.09 | 2.0E-98 | 4758975 | NT | Homo sapiens protein tyrosine kinase 2 beta (PTK2B) mRNA |
| 5303 | 15224 | 25028 | 4.66 | 2.0E-98 | 7706312 | NT | Homo sapiens PDZ domain-containing guanine nucleotide exchange factor 1 (LOC51735), mRNA |
| 7004 | 16881 | 27073 | 3.87 | 2.0E-98 | 11428813 | NT | Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA |
| 7004 | 16881 | 27074 | 3.87 | 2.0E-98 | 11428813 | NT | Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA |
| 7497 | 17367 | 27572 | 1.5 | 2.0E-98 | X12664.1 | NT | H.sapiens arginase gene exon 3 (EC 3.5.3.1) |
| 7951 | 17801 | | 1.18 | 2.0E-98 | 7705868 | NT | Homo sapiens AIM-1 protein (LOC51151), mRNA |
| 9350 | 19026 | 25301 | 1.43 | 2.0E-98 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 399 | 10345 | 20172 | 18.93 | 1.0E-98 | A1862007.1 | EST_HUMAN | tw36b04.x1 NCI_CGAP_UY1 Homo sapiens cDNA clone IMAGE:2261743 3' similar to SW:RL2B_HUMAN P29316 60S RIBOSOMAL PROTEIN L23A. ; |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 447 | 10391 | 20212 | 2.38 | 1.0E-98 | AW998611.1 | EST_HUMAN | PMO-BN0065-100300-001-c06 BN0065 Homo sapiens cDNA |
| 1756 | 11655 | 21526 | 16.96 | 1.0E-98 | N49818.1 | EST_HUMAN | yw23105.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243585 5' similar to PIR:S54204 S54204 ribosomal protein L29 - human ; |
| 5256 | 15178 | 24953 | 6.96 | 1.0E-98 | AA195954.1 | EST_HUMAN | zp98c09.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628240 5' similar to TR:9806562 G806562 NEBULIN ; |
| 7203 | 17080 | 27266 | 1.36 | 1.0E-98 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 7203 | 17080 | 27267 | 1.36 | 1.0E-98 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 5681 | 15590 | 25692 | 4.29 | 9.0E-99 | AW998635.1 | EST_HUMAN | EST380711 MAGE resequences, MAGJ Homo sapiens cDNA |
| 8465 | 18338 | 28602 | 2.6 | 9.0E-99 | AI479829.1 | EST_HUMAN | tm69h07.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:BD_HUMAN P55957 BH3 INTERACTING DOMAIN DEATH AGONIST ; |
| 8465 | 18338 | 28603 | 2.6 | 9.0E-99 | AI479829.1 | EST_HUMAN | tm69h07.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:BD_HUMAN P55957 BH3 INTERACTING DOMAIN DEATH AGONIST ; |
| 8716 | 18533 | 28817 | 1.84 | 9.0E-99 | AA134604.1 | EST_HUMAN | zn90d02.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565443 5' similar to TR:G662994 G662994 GPI-ANCHORED PROTEIN P137 ; |
| 7065 | 16942 | 27134 | 1.19 | 8.0E-99 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 5561 | 15477 | 25550 | 9.2 | 7.0E-99 | AF035808.1 | NT | Homo sapiens oscillin (hLn) gene, exon 5 |
| 8884 | 18695 | 28988 | 2.31 | 7.0E-99 | AF001886.1 | NT | Homo sapiens NK-receptor (KIR-G2) gene, linker region exon |
| 2080 | 11970 | 21863 | 0.93 | 6.0E-99 | 11430555 | NT | Homo sapiens cysteine-rich repeat-containing protein S62 precursor, (LOC51232), mRNA |
| 2080 | 11970 | 21864 | 0.93 | 6.0E-99 | 11430555 | NT | Homo sapiens cysteine-rich repeat-containing protein S62 precursor, (LOC51232), mRNA |
| 3814 | 13726 | 23517 | 1.87 | 6.0E-99 | AW976364.1 | EST_HUMAN | EST388473 MAGE resequences, MAGN Homo sapiens cDNA |
| 4642 | 14530 | 24318 | 1.16 | 6.0E-99 | 4502660 | NT | Homo sapiens CD34 antigen (CD34) mRNA |
| 6013 | 15917 | 26047 | 2.36 | 6.0E-99 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 6013 | 15917 | 26048 | 2.36 | 6.0E-99 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 6718 | 16598 | 26787 | 1.21 | 6.0E-99 | X99101.1 | NT | H. sapiens mRNA for estrogen receptor |
| 7089 | 16966 | 27160 | 2.18 | 6.0E-99 | AB036429.1 | NT | Homo sapiens NDST14 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds |
| 7143 | 17020 | 27213 | 3.57 | 6.0E-99 | AF080255.1 | NT | Homo sapiens lodestar protein mRNA, complete cds |
| 7143 | 17020 | 27214 | 3.57 | 6.0E-99 | AF080255.1 | NT | Homo sapiens lodestar protein mRNA, complete cds |
| 8102 | 17992 | 28241 | 3.72 | 6.0E-99 | 11528299 | NT | Homo sapiens BH3 interacting domain death agonist (BID), mRNA |
| 902 | 10827 | 20671 | 0.86 | 5.0E-99 | U35464.1 | NT | Human protein C inhibitor (PCI-B) mRNA, complete cds |
| 902 | 10827 | 20672 | 0.86 | 5.0E-99 | U35464.1 | NT | Human protein C inhibitor (PCI-B) mRNA, complete cds |
| 1922 | 11817 | 21696 | 2.36 | 5.0E-99 | Y11365.1 | NT | H. sapiens IMPA gene, exon 8 |
| 4463 | 14357 | 24148 | 1.35 | 5.0E-99 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TORBV7S3A2 to TORBV12S2 region |
| 5086 | 14936 | 24709 | 2.46 | 5.0E-99 | 4758697 | NT | Homo sapiens mannosidase, alpha, class 2A, member 1 (MAN2A1), mRNA |
| 9360 | 19032 | | 2.1 | 5.0E-99 | BE890177.1 | EST_HUMAN | 601513157F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914391 5' |

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6844 | 16723 | | 5.37 | 3.0E-99 | M95586.1 | NT | Human E2A/HLA fusion protein (E2A/HLE) mRNA, complete cds |
| 1219 | 11128 | | 3.46 | 2.0E-99 | AW274792.1 | EST_HUMAN | xp09e06.x1 NCI_CGAP_HN9 Homo sapiens cDNA clone IMAGE:2739874 3' similar to gb:M31212 MYOSIN LIGHT CHAIN ALKALI, NON-MUSCLE ISOFORM (HUMAN); |
| 3220 | 13144 | 22947 | 1.08 | 2.0E-99 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4443 | 14337 | 24127 | 3.15 | 2.0E-99 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 7053 | 16930 | 27121 | 9.75 | 2.0E-99 | W23507.1 | EST_HUMAN | zb46d06.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:306635 5' similar to gb:M15182 BETA-GLUCURONIDASE PRECURSOR (HUMAN); |
| 8451 | 18324 | 28583 | 3.83 | 2.0E-99 | AF247457.2 | NT | Homo sapiens myosin X (MYO10) mRNA, complete cds |
| 312 | 10274 | 20093 | 1.53 | 1.0E-99 | AF114487.1 | NT | Homo sapiens interseclin long isoform (ITSN) mRNA, complete cds |
| 375 | 10329 | 20152 | 1.04 | 1.0E-99 | 11526150 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 1401 | 11306 | 21166 | 2.11 | 1.0E-99 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 1537 | 11441 | 21298 | 1.47 | 1.0E-99 | AF192523.1 | NT | Homo sapiens truncated Niemann-Pick C3 protein (NPC3) mRNA, complete cds |
| 1537 | 11441 | 21299 | 1.47 | 1.0E-99 | AF192523.1 | NT | Homo sapiens truncated Niemann-Pick C3 protein (NPC3) mRNA, complete cds |
| 1885 | 11781 | 21656 | 1.1 | 1.0E-99 | 4503730 | NT | Homo sapiens FK506-binding protein 6 (36kD) (FKBP6) mRNA, and translated products |
| 1885 | 11781 | 21657 | 1.1 | 1.0E-99 | 4503730 | NT | Homo sapiens FK506-binding protein 6 (36kD) (FKBP6) mRNA, and translated products |
| 3046 | 12973 | 22766 | 0.89 | 1.0E-99 | J03171.1 | NT | Human Interferon-alpha receptor (HulFN-alpha-Rec) mRNA, complete cds |
| 4283 | 14182 | 23960 | 2.74 | 1.0E-99 | AF098018.1 | NT | Homo sapiens fatty acid amide hydrolase (FAAH) gene, exon 14 |
| 4283 | 14182 | 23961 | 2.74 | 1.0E-99 | AF098018.1 | NT | Homo sapiens fatty acid amide hydrolase (FAAH) gene, exon 14 |
| 5200 | 15063 | | 1.18 | 1.0E-99 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 7305 | 17181 | | 1.15 | 1.0E-99 | 11419721 | NT | Homo sapiens ALEX1 protein (LOC51309), mRNA |
| 7483 | 17353 | 27557 | 1.68 | 1.0E-99 | AW340174.1 | EST_HUMAN | hd02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2908371 3' similar to TR:O02711 |
| 8683 | 18571 | 28854 | 2.4 | 1.0E-99 | AB023222.1 | NT | O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 9125 | 18884 | | | | | | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 1 | 9989 | 19780 | 3.76 | 1.0E-99 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2 | 9989 | 19780 | 1.13 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 62 | 10048 | 19859 | 1.93 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 62 | 10048 | 19860 | 1.48 | 1.0E-100 | 11418230 | NT | Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA |
| 81 | 10065 | 19883 | 1.48 | 1.0E-100 | 11418230 | NT | Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA |
| 162 | 10135 | 19950 | 1.52 | 1.0E-100 | AW275237.1 | EST_HUMAN | xv78b11.x1 NCI_CGAP_Bm53 Homo sapiens cDNA clone IMAGE:2824605 3' |
| 314 | 10276 | 20095 | 1.16 | 1.0E-100 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 340 | 10299 | 20114 | 1.01 | 1.0E-100 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 340 | 10299 | 20114 | 2.43 | 1.0E-100 | T05087.1 | EST_HUMAN | EST02975 Fetal brain, Stragelene (cat#936206) Homo sapiens cDNA clone HFBRCR32 |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLASTE Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|--|--------------------------|-------------------------------|--|
| 430 | 10375 | | 1.53 | 1.0E-100 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 481 | 10425 | | 7.04 | 1.0E-100 | X89631.1 | NT | G.gorilla DNA for ZNF80 gene homolog |
| 500 | 10442 | 20255 | 4.17 | 1.0E-100 | BE180609.1 | EST_HUMAN | RC3-HT0625-040500-022-b09 HT0625 Homo sapiens cDNA |
| 1002 | 10920 | 20763 | 2.43 | 1.0E-100 | 7681685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 1002 | 10920 | 20764 | 2.43 | 1.0E-100 | 7681685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 1528 | 11433 | | 1.33 | 1.0E-100 | AW207555.1 | EST_HUMAN | UI-H-B11-afk-c-07-0-UJ.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722164 3' |
| 1533 | 11437 | 21294 | 1.46 | 1.0E-100 | AI200857.1 | EST_HUMAN | qf0209.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1754633 3' similar to SW_CYT_COTJA P81061 CYSTATIN ; |
| 2195 | 12082 | | 1.45 | 1.0E-100 | D83349.1 | NT | Rat mRNA for short type PB-cadherin, complete cds |
| 2388 | 12267 | 22160 | 1.08 | 1.0E-100 | X62468.1 | NT | H. sapiens mRNA for IFN-gamma (pKC-C) |
| 2674 | 12539 | 22429 | 1.87 | 1.0E-100 | 11418976 | NT | Homo sapiens KIAA0957 protein (KIAA0957), mRNA |
| 2985 | 12913 | | 2.45 | 1.0E-100 | D111078.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 4116 | 14016 | 23796 | 1.49 | 1.0E-100 | AF057354.1 | NT | Homo sapiens myotubularin-related protein 1a mRNA, partial cds |
| 4143 | 14043 | 23816 | 1.87 | 1.0E-100 | 4503792 | NT | Homo sapiens follicle stimulating hormone receptor (FSHR) mRNA |
| 5024 | 14897 | 24665 | 3.07 | 1.0E-100 | 5032104 | NT | Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA |
| 5024 | 14897 | 24666 | 3.07 | 1.0E-100 | 5032104 | NT | Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA |
| 5232 | 15156 | 24924 | 1.8 | 1.0E-100 | BF244218.1 | EST_HUMAN | 601863164F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4080999 5' |
| 5496 | 15415 | 25478 | 1.4 | 1.0E-100 | AU118182.1 | EST_HUMAN | AU118182 HEMBA1 Homo sapiens cDNA clone HEMBA1003046 5' |
| 5514 | 15432 | 25496 | 1.55 | 1.0E-100 | AF135116.1 | NT | Homo sapiens NF-E2-related factor 3 gene, complete cds |
| 5915 | 15821 | 25946 | 5.1 | 1.0E-100 | AU140214.1 | EST_HUMAN | AU140214 PLACE2 Homo sapiens cDNA clone PLACE2000137 5' |
| 6015 | 15919 | 26049 | 1.41 | 1.0E-100 | R10887.1 | EST_HUMAN | yf38c08.s1 Soares fetal liver spleen 1NFILS Homo sapiens cDNA clone IMAGE:129134 3' |
| 6116 | 16010 | 26146 | 1.4 | 1.0E-100 | BF376478.1 | EST_HUMAN | MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA |
| 6116 | 16010 | 26147 | 1.4 | 1.0E-100 | BF376478.1 | EST_HUMAN | MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA |
| 6119 | 16013 | 26151 | 6.99 | 1.0E-100 | X04571.1 | NT | Human mRNA for kidney epidermal growth factor (EGF) precursor |
| 6963 | 16841 | 27033 | 6.19 | 1.0E-100 | BF103853.1 | EST_HUMAN | 601647357F1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:3931310 5' |
| 6983 | 16860 | | 5.44 | 1.0E-100 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 7322 | 17198 | 27398 | 3.2 | 1.0E-100 | AB040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 7369 | 17347 | | 1.53 | 1.0E-100 | AI972388.1 | EST_HUMAN | wr37g09.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2489920 3' similar to contains element MER22 repetitive element ; |
| 7426 | 16439 | 26625 | 1.67 | 1.0E-100 | AW998611.1 | EST_HUMAN | PMO-BN0065-100300-001-c06 BN0065 Homo sapiens cDNA |
| 7527 | 17378 | 27587 | 1.73 | 1.0E-100 | AB046846.1 | NT | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 7527 | 17378 | 27588 | 1.73 | 1.0E-100 | AB046846.1 | NT | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 7664 | 17514 | 27740 | 1.69 | 1.0E-100 | AW630487.1 | EST_HUMAN | hh83c1f1.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969396 5' |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|-----------------------------|-------------------------------|--|
| 7664 | 17514 | 27741 | 1.69 | 1.0E-100 | AW630487.1 | EST_HUMAN | h83c1.1.yf NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969396 5' |
| 8016 | 17866 | | 1.29 | 1.0E-100 | Y10391.1 | NT | Human endogenous retrovirus HERV-K, pol gene |
| 8141 | 18029 | 28275 | 5.23 | 1.0E-100 | BF327292.1 | EST_HUMAN | MRO-BN0070-270300-008-h11 BN0070 Homo sapiens cDNA |
| 8606 | 18473 | 28745 | 2.14 | 1.0E-100 | X94633.1 | NT | H.sapiens CD97 gene exon 4 |
| 8606 | 18473 | 28746 | 2.14 | 1.0E-100 | X94633.1 | NT | H.sapiens CD97 gene exon 4 |
| 8660 | 18549 | 28831 | 4.56 | 1.0E-100 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 8660 | 18549 | 28832 | 4.56 | 1.0E-100 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 8688 | 9989 | 19780 | 1.96 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 8830 | 18738 | | 1.86 | 1.0E-100 | AF266285.1 | NT | Homo sapiens golgin-like protein (GLP) gene, complete cds |
| 9048 | 18832 | 29114 | 5.59 | 1.0E-100 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 9351 | 19027 | 25302 | 2.21 | 1.0E-100 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 9940 | 19409 | 25181 | 3.38 | 1.0E-100 | 11417974 | NT | Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA |
| 70 | 10055 | 19871 | 1.22 | 1.0E-101 | 7110714 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 70 | 10055 | 19872 | 1.22 | 1.0E-101 | 7110714 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 671 | 10605 | 20422 | 1.16 | 1.0E-101 | AB007915.2 | NT | Homo sapiens mRNA for KIAA0446 protein, partial cds |
| 688 | 10621 | 20447 | 4.45 | 1.0E-101 | 7110734 | NT | Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA |
| 688 | 10621 | 20448 | 4.45 | 1.0E-101 | 7110734 | NT | Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA |
| 754 | 10684 | 20521 | 1.32 | 1.0E-101 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRC domain (PES1), mRNA |
| 835 | 10762 | 20612 | 1.28 | 1.0E-101 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycylamide synthetase, phosphoribosylaminimidazole synthetase (GART) mRNA |
| 908 | 10832 | 20679 | 3.44 | 1.0E-101 | Z20656.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |
| 969 | 10892 | 20741 | 12.74 | 1.0E-101 | BF681218.1 | EST_HUMAN | 602159474F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4297291 5' |
| 1036 | 10954 | 20796 | 1.63 | 1.0E-101 | AI221878.1 | EST_HUMAN | qg99e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843336 3' |
| 1712 | 11613 | 21483 | 0.87 | 1.0E-101 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1712 | 11613 | 21484 | 0.87 | 1.0E-101 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1901 | 11797 | 21677 | 1.62 | 1.0E-101 | 4502906 | NT | Homo sapiens carboxypeptidase A1 (pancreatic) (CPA1) mRNA |
| 2010 | 11902 | 21792 | 1.6 | 1.0E-101 | BE843070.1 | EST_HUMAN | RC3-ST0281-160600-016-h09 ST0281 Homo sapiens cDNA |
| 2301 | 12718 | 22080 | 1.66 | 1.0E-101 | 5729892 | NT | Homo sapiens A kinase (PRKA) anchor protein 6 (AKAP6), mRNA |
| 2572 | 12443 | 22335 | 4.4 | 1.0E-101 | X72993.1 | NT | H.sapiens EWS gene, exon 5 |
| 2714 | 12576 | 22468 | 2.56 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBLIR gene (partial), exon 12 |
| 2714 | 12576 | 22469 | 2.56 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBLIR gene (partial), exon 12 |
| 2925 | 12852 | | 12.14 | 1.0E-101 | AJ252312.1 | NT | Homo sapiens genomic downstream Rhesus box |
| 3167 | 13092 | 22897 | 2.51 | 1.0E-101 | 4885270 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1) mRNA |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3203 | 13127 | | 2.16 | 1.0E-101 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 3334 | 13254 | 23059 | 1.67 | 1.0E-101 | AW965556.1 | EST_HUMAN | EST1377629 MAGE resequences, MAGI Homo sapiens cDNA |
| 3354 | 12576 | 22468 | 1.75 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIB1R gene (partial), exon 12 |
| 3354 | 12576 | 22469 | 1.75 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIB1R gene (partial), exon 12 |
| 3800 | 13712 | 23499 | 4.83 | 1.0E-101 | AB022785.1 | NT | Homo sapiens ASH2L gene, complete cds, similar to Drosophila ash2 gene |
| 4965 | 14840 | 24609 | 1.67 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 4965 | 14840 | 24610 | 1.67 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 5257 | 15179 | 24954 | 1.4 | 1.0E-101 | AW965139.1 | EST_HUMAN | EST1377212 MAGE resequences, MAGI Homo sapiens cDNA |
| 5651 | 15593 | 26658 | 3.73 | 1.0E-101 | 7427512 | NT | Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA |
| 5651 | 15593 | 26659 | 3.73 | 1.0E-101 | 7427512 | NT | Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA |
| 6333 | 16196 | 26356 | 4.16 | 1.0E-101 | AF208970.1 | NT | Homo sapiens Kruppel-type zinc finger protein (PEG3) mRNA, alternative splice form 4, partial cds |
| 6333 | 16196 | 26357 | 4.16 | 1.0E-101 | AF208970.1 | NT | Homo sapiens Kruppel-type zinc finger protein (PEG3) mRNA, alternative splice form 4, partial cds |
| 6416 | 16278 | 26441 | 5.63 | 1.0E-101 | AW008475.1 | EST_HUMAN | w55f12.x1 NC1_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2533487 3' |
| 6471 | 16330 | | 1.55 | 1.0E-101 | BE257384.1 | EST_HUMAN | 601109217F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349901 5' |
| 6544 | 16402 | 26581 | 5.3 | 1.0E-101 | BF330759.1 | EST_HUMAN | RC1-BT0313-220700-018-f12 BT0313 Homo sapiens cDNA |
| 6693 | 16573 | 26764 | 2.65 | 1.0E-101 | BF029174.1 | EST_HUMAN | 601764686F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3996837 5' |
| | | | | | | | zK29g08.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471998 5' similar to |
| 7208 | 17085 | 27274 | 1.15 | 1.0E-101 | AA036800.1 | EST_HUMAN | PIR:S54640 S54640 YD9335.03c protein - yeast; |
| 7446 | 16458 | 26650 | 16.52 | 1.0E-101 | X60069.1 | NT | Human mRNA for pancreatic gamma-glutamyltransferase |
| 7446 | 16458 | 26651 | 16.52 | 1.0E-101 | X60069.1 | NT | Human mRNA for pancreatic gamma-glutamyltransferase |
| 7454 | 17283 | 27468 | 18.4 | 1.0E-101 | 9845492 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), transcript variant 3, mRNA |
| 7623 | 17474 | 27694 | 5.64 | 1.0E-101 | BE619667.1 | EST_HUMAN | 601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875953 3' |
| 7623 | 17474 | 27695 | 5.64 | 1.0E-101 | BE619667.1 | EST_HUMAN | 601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875953 3' |
| 7950 | 17800 | 28040 | 1.76 | 1.0E-101 | 11429127 | NT | Homo sapiens Janus Kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |
| | | | | | | | branched-chain alpha-keto acid dehydrogenase complex E1 alpha subunit [human, Genomic, 195 nt, segment 8 of 9] |
| 8252 | 18132 | 28381 | 2.88 | 1.0E-101 | S38327.1 | NT | Homo sapiens mRNA for KIAA0819 protein, partial cds |
| 8454 | 18327 | 28586 | 1.78 | 1.0E-101 | AB020626.1 | NT | Homo sapiens mRNA for KIAA0819 protein, partial cds |
| 9610 | 19189 | | 11.62 | 1.0E-101 | AW939051.1 | EST_HUMAN | QV1-DT0068-240200-085-a01 DT0068 Homo sapiens cDNA |
| 338 | 10297 | 20111 | 3.24 | 1.0E-102 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 604 | 10540 | 20350 | 0.89 | 1.0E-102 | BE252470.1 | EST_HUMAN | 601108292F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344326 5' |
| 758 | 10688 | 20526 | 1.46 | 1.0E-102 | 4557534 | NT | Homo sapiens down-regulated in adenoma (DRA) mRNA |
| 1101 | 11017 | 20859 | 1.95 | 1.0E-102 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete proviral segment |
| 1247 | 11154 | 21002 | 1.39 | 1.0E-102 | 11437146 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 1247 | 11154 | 21003 | 1.39 | 1.0E-102 | 11437146 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 1398 | 11303 | 21162 | 90.24 | 1.0E-102 | BE408447.1 | EST_HUMAN | 601299982F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3629901 5' |
| 2261 | 12145 | 22044 | 1.34 | 1.0E-102 | A1124669.1 | EST_HUMAN | am60c10.x1 Johnson frontal cortex Homo sapiens cDNA clone IMAGE:1539954 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95.; |
| 2261 | 12145 | 22045 | 1.34 | 1.0E-102 | A1124669.1 | EST_HUMAN | am60c10.x1 Johnson frontal cortex Homo sapiens cDNA clone IMAGE:1539954 3' similar to |
| 3026 | 12954 | 22747 | 1.51 | 1.0E-102 | 7661979 | NT | SW:GG95_HUMAN Q08379 GOLGIN-95.; |
| 3094 | 13021 | 22815 | 5.61 | 1.0E-102 | AU141005.1 | EST_HUMAN | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 3094 | 13021 | 22816 | 5.61 | 1.0E-102 | AU141005.1 | EST_HUMAN | AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5' |
| 4139 | 14039 | 23814 | 1.46 | 1.0E-102 | AL163207.2 | NT | AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5' |
| 4314 | 14211 | 23994 | 2.11 | 1.0E-102 | BE251310.1 | EST_HUMAN | Homo sapiens chromosome 21 segment HS21C007 |
| 5063 | 14933 | 24705 | 1.09 | 1.0E-102 | R66488.1 | EST_HUMAN | 601107843F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343882 5' |
| 5300 | 15221 | 25025 | 1.88 | 1.0E-102 | AF067133.1 | NT | y32c04.r1 Soares placenta Nk2HP Homo sapiens cDNA clone IMAGE:140934 5' |
| 5515 | 15433 | | 7.27 | 1.0E-102 | AB034951.1 | NT | Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 7 |
| 5536 | 15433 | 25522 | 3.46 | 1.0E-102 | 7705398 | NT | Homo sapiens HSC54 mRNA for heat shock cognate protein 54, complete cds |
| 5536 | 15433 | 25523 | 3.46 | 1.0E-102 | 7705398 | NT | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 5800 | 15706 | 25818 | 2.54 | 1.0E-102 | AI459825.1 | EST_HUMAN | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 6351 | 16214 | 26376 | 6.56 | 1.0E-102 | AJ238994.1 | NT | ar82f09.x1 Barslead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2151785 3' similar to TR:Q13137 Q13137 NDP52.; |
| 6495 | 16354 | 26524 | 2.53 | 1.0E-102 | AV710738.1 | EST_HUMAN | Homo sapiens mRNA for Centaurin-alpha2 protein |
| 6787 | 16686 | 26857 | 4.2 | 1.0E-102 | BE763051.1 | EST_HUMAN | AV710738 Cu Homo sapiens cDNA clone CuAAKD03 5' |
| 6832 | 16711 | 26904 | 2.53 | 1.0E-102 | BE910555.1 | EST_HUMAN | QV3-NT0025-210600-236-H08 NT0025 Homo sapiens cDNA |
| 6945 | 16823 | 27014 | 1.36 | 1.0E-102 | AV694817.1 | EST_HUMAN | 601501107F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3903145 5' |
| 6945 | 16823 | 27015 | 1.36 | 1.0E-102 | AV694817.1 | EST_HUMAN | AV694817 GK Homo sapiens cDNA clone GKCEEE11 5' |
| 7001 | 16878 | 27069 | 4.06 | 1.0E-102 | AB007923.1 | NT | AV694817 GK Homo sapiens cDNA clone GKCEEE11 5' |
| 7374 | 17243 | 27448 | 1.52 | 1.0E-102 | T70393.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 7374 | 17243 | 27449 | 1.52 | 1.0E-102 | T70393.1 | EST_HUMAN | ydl13d07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:67021 5' |
| 7415 | 17282 | 27490 | 3.59 | 1.0E-102 | AU124629.1 | EST_HUMAN | ydl13d07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:67021 5' |
| 7961 | 17811 | 28052 | 2.03 | 1.0E-102 | 11425430 | NT | AU124629 NT2RMA4 Homo sapiens cDNA clone NT2RMA4000309 5' |
| 7961 | 17811 | 28053 | 2.03 | 1.0E-102 | 11425430 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 7981 | 17831 | 28070 | 2.9 | 1.0E-102 | AI905037.1 | EST_HUMAN | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 7981 | 17831 | 28071 | 2.9 | 1.0E-102 | AI905037.1 | EST_HUMAN | RC-BT074-260499-014 BT074 Homo sapiens cDNA |
| 8005 | 17855 | 28096 | 2.3 | 1.0E-102 | AA970786.1 | EST_HUMAN | RC-BT074-260499-014 BT074 Homo sapiens cDNA on57h04.s1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1560823 3' similar to SW:CAV2_HUMAN P51636 CAVEOLIN-2. [1]; |
| 8421 | 18295 | 28549 | 2.38 | 1.0E-102 | BE897468.1 | EST_HUMAN | 601439392F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924166 5' |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8424 | 18298 | 28553 | 1.99 | 1.0E-102 | 4507822 | NT | Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA |
| 8424 | 18298 | 28554 | 1.99 | 1.0E-102 | 4507822 | NT | Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA |
| 8708 | 18525 | 28807 | 2.78 | 1.0E-102 | BF359243.1 | EST_HUMAN | RC8-ET0072:150600-011-F01 ET0072 Homo sapiens cDNA |
| 8947 | 18755 | 29051 | 4.04 | 1.0E-102 | U41302.1 | NT | Human chromosome 16 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds |
| 9054 | 18837 | | 2.82 | 1.0E-102 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 9601 | 19183 | 25247 | 4.77 | 1.0E-102 | AW300862.1 | EST_HUMAN | x607c12.x1 NCL CGAP_Co20 Homo sapiens cDNA clone IMAGE:2666038 3' |
| 63 | 10049 | 19861 | 0.82 | 1.0E-103 | BE908158.1 | EST_HUMAN | 601500405F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902305 5' |
| 63 | 10049 | 19862 | 0.82 | 1.0E-103 | BE908158.1 | EST_HUMAN | 601500405F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902305 5' |
| 93 | 10078 | 19894 | 8.1 | 1.0E-103 | D87078.2 | NT | Homo sapiens mRNA for KIAA0235 protein, partial cds |
| 201 | 10173 | 19989 | 0.83 | 1.0E-103 | 5453793 | NT | Homo sapiens nucleolar protein (KKEID repeat) (NOP56) mRNA |
| 965 | 10888 | 20734 | 1.01 | 1.0E-103 | AJ278348.1 | NT | Homo sapiens mRNA for pregnancy-associated plasma protein-E (PAPPE gene) |
| 1223 | 11131 | 20985 | 7.29 | 1.0E-103 | BE877541.1 | EST_HUMAN | 601485388F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887876 5' |
| 1578 | 11482 | 21342 | 2.32 | 1.0E-103 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 1872 | 11768 | 21643 | 1.04 | 1.0E-103 | 7657592 | NT | Homo sapiens sing GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 1932 | 11827 | 21708 | 1.27 | 1.0E-103 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |
| 1932 | 11827 | 21709 | 1.27 | 1.0E-103 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |
| 2257 | 12141 | 22040 | 1.57 | 1.0E-103 | AL134891.1 | EST_HUMAN | AU134991 PLACE1 Homo sapiens cDNA clone PLACE1000965 5' |
| 2401 | 12278 | 22175 | 2.22 | 1.0E-103 | AF060568.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |
| 2578 | 12449 | 22340 | 0.86 | 1.0E-103 | N32770.1 | EST_HUMAN | yw91d08.s1 Soares_placenta_8to9weeks_2NblHP8to9W Homo sapiens cDNA clone IMAGE:259599 3' |
| 3030 | 12958 | | 2.43 | 1.0E-103 | BE744722.1 | EST_HUMAN | 601573113F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834315 5' |
| 3333 | 13253 | 23058 | 3.44 | 1.0E-103 | AW298245.1 | EST_HUMAN | UI-H-BW0-ajl-h-11-0-UI.s1 NCL CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2733165 3' |
| 3393 | 13310 | 23103 | 1.06 | 1.0E-103 | AB040892.1 | NT | Homo sapiens mRNA for KIAA1459 protein, partial cds |
| 3695 | 13609 | | 2.41 | 1.0E-103 | AF023861.1 | NT | Macaca mulatta cyclophilin A mRNA, complete cds |
| 3725 | 13637 | 23423 | 1.16 | 1.0E-103 | AA485663.1 | EST_HUMAN | ab10d12.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:840407 3' similar to contains element LTR10 repetitive element ; |
| 3757 | 13670 | 23454 | 1.39 | 1.0E-103 | 11430876 | NT | Homo sapiens neuropilin 1 (NRP1), mRNA |
| 3922 | 13831 | 23611 | 3.02 | 1.0E-103 | T23683.1 | EST_HUMAN | seq340 b4HB3MA-Cot109+10-Bio Homo sapiens cDNA clone b4HB3MA-Cot109+10-Bio-7 3' |
| 5619 | 15534 | 25619 | 1.72 | 1.0E-103 | AF179906.1 | NT | Homo sapiens septin 2 (SEP2) mRNA, partial cds |
| 5998 | 15903 | 26027 | 5.37 | 1.0E-103 | AF053490.1 | NT | Homo sapiens glycine receptor alpha 2 subunit (GLRA2) gene, exon 4 |
| 6033 | 15936 | 26069 | 1.68 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58b05.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS ; |

Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6033 | 15936 | 26070 | 1.68 | 1.0E-103 | AI590071.1 | EST_HUMAN | trn58b05.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.; |
| 6092 | 15102 | 24878 | 1.68 | 1.0E-103 | 5032282 | NT | Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS164, DXS206, DXS230, DXS239, DXS288, DXS289, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA |
| 6092 | 15102 | 24879 | 1.68 | 1.0E-103 | 5032282 | NT | Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS164, DXS206, DXS230, DXS239, DXS288, DXS289, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA |
| 6289 | 16153 | 26310 | 1.64 | 1.0E-103 | AW965776.1 | EST_HUMAN | EST377849 MAGE resequences, MAGI Homo sapiens cDNA |
| 6338 | 16201 | 26361 | 3.21 | 1.0E-103 | BE748158.1 | EST_HUMAN | 601571537F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838545 5' |
| 6568 | 16426 | 26607 | 3.28 | 1.0E-103 | AI590071.1 | EST_HUMAN | trn58b05.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.; |
| 6568 | 16426 | 26608 | 3.28 | 1.0E-103 | AI590071.1 | EST_HUMAN | trn58b05.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.; |
| 6823 | 16702 | 26896 | 2.95 | 1.0E-103 | T31080.1 | EST_HUMAN | EST127193 Human Brain Homo sapiens cDNA 5' end similar to None |
| 7010 | 16887 | 27079 | 1.17 | 1.0E-103 | AU140344.1 | EST_HUMAN | AU140344 PLACE2 Homo sapiens cDNA clone PLACE2000374 5' |
| 7010 | 16887 | 27080 | 1.17 | 1.0E-103 | AU140344.1 | EST_HUMAN | AU140344 PLACE2 Homo sapiens cDNA clone PLACE2000374 5' |
| 7050 | 16927 | 27118 | 1.43 | 1.0E-103 | BF109244.1 | EST_HUMAN | 7160e03.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525964 3' similar to SW.PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ; |
| 7267 | 17144 | 27337 | 3.08 | 1.0E-103 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 7267 | 17144 | 27338 | 3.08 | 1.0E-103 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 7787 | 17637 | 27870 | 2.02 | 1.0E-103 | Z37976.1 | NT | H. sapiens mRNA for latent transforming growth factor-beta binding protein (L TBP-2) |
| 7815 | 17685 | 27905 | 2.09 | 1.0E-103 | AW963676.1 | EST_HUMAN | EST375749 MAGE resequences, MAGH Homo sapiens cDNA |
| 7878 | 17728 | 27972 | 9.93 | 1.0E-103 | AI878956.1 | EST_HUMAN | au51g04.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518326 5' similar to TR:O15046 O15046 KIAA0338 ; |
| 8115 | 18004 | 28250 | 3.08 | 1.0E-103 | AI792759.1 | EST_HUMAN | o102d06.y5 NCL_CGAP_Lu15 Homo sapiens cDNA clone IMAGE:1522283 5' similar to TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING ; |
| 8218 | 18101 | 28353 | 2.74 | 1.0E-103 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 8218 | 18101 | 28354 | 2.74 | 1.0E-103 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 8681 | 18569 | 28862 | 2.56 | 1.0E-103 | AU136283.1 | EST_HUMAN | AU136283 PLACE1 Homo sapiens cDNA clone PLACE1003923 5' |
| 8743 | 17892 | 28136 | 6.49 | 1.0E-103 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 8973 | 18778 | 29070 | 3.42 | 1.0E-103 | BE644611.1 | EST_HUMAN | 7e68a10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3287610 3' similar to contains MER29.t3 MER29 repetitive element ; |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 9049 | 18833 | | 1.72 | 1.0E-103 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9079 | 18855 | | 2.65 | 1.0E-103 | 11526291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |
| 9275 | 18979 | 25323 | 2.21 | 1.0E-103 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 233 | 10202 | 20016 | 2.6 | 1.0E-104 | AL037549.3 | EST_HUMAN | DKFZp564H1072_r1 564 (synonym: hibr2) Homo sapiens cDNA clone DKFZp564H1072 5' |
| 233 | 10202 | 20017 | 2.6 | 1.0E-104 | AL037549.3 | EST_HUMAN | DKFZp564H1072_r1 564 (synonym: hibr2) Homo sapiens cDNA clone DKFZp564H1072 5' |
| 1845 | 11741 | 21617 | 1.81 | 1.0E-104 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteoinductive protein 2) (BMP8) mRNA |
| 2147 | 12035 | 21932 | 7.16 | 1.0E-104 | AA132975.1 | EST_HUMAN | zo22a06.s1 Striatagene colon (#937204) Homo sapiens cDNA clone IMAGE:587626 3' similar to gb:Z14116.mna1 CD59 GLYCOPROTEIN PRECURSOR (HUMAN); |
| 2157 | 12044 | 21944 | 1.91 | 1.0E-104 | BE744928.1 | EST_HUMAN | 601577460F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926438 5' |
| 2318 | 12199 | 22097 | 1.15 | 1.0E-104 | BF334221.1 | EST_HUMAN | RC1-C10249-110900-214-f12 CT0249 Homo sapiens cDNA |
| 2318 | 12199 | 22098 | 1.15 | 1.0E-104 | BF334221.1 | EST_HUMAN | RC1-C10249-110900-214-f12 CT0249 Homo sapiens cDNA |
| 2387 | 12266 | 22159 | 1.55 | 1.0E-104 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2842 | 12770 | 22559 | 7.64 | 1.0E-104 | M34571.1 | NT | Human lymphocytic antigen CD59/MEIM43 mRNA, complete cds |
| 2886 | 12813 | | 2.82 | 1.0E-104 | Y11151.1 | NT | H.sapiens gene encoding phenylpyruvate tautomerase II |
| 3345 | 13265 | | 1.54 | 1.0E-104 | AA319436.1 | EST_HUMAN | EST21658 Adrenal gland tumor Homo sapiens cDNA 5' end |
| 3550 | 13465 | 23260 | 0.99 | 1.0E-104 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 3550 | 13465 | 23261 | 0.99 | 1.0E-104 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 3861 | 13772 | 23564 | 0.91 | 1.0E-104 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 4280 | 14179 | 23957 | 4.28 | 1.0E-104 | X02761.1 | NT | Human mRNA for fibronectin (FN precursor) |
| 4504 | 14397 | 24182 | 0.9 | 1.0E-104 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 4504 | 14397 | 24183 | 0.9 | 1.0E-104 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 5617 | 15532 | 25615 | 1.33 | 1.0E-104 | U43379.1 | NT | Human Down Syndrome region of chromosome 21 DNA |
| 5617 | 15532 | 25616 | 1.33 | 1.0E-104 | U43379.1 | NT | Human Down Syndrome region of chromosome 21 DNA |
| 5891 | 15797 | 25919 | 8.46 | 1.0E-104 | A1768797.1 | EST_HUMAN | wj03b12.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN ; contains element LTR7 repetitive element ; |
| 5891 | 15797 | 25920 | 8.46 | 1.0E-104 | A1768797.1 | EST_HUMAN | wj03b12.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN ; contains element LTR7 repetitive element ; |
| 6073 | 16056 | 26204 | 1.52 | 1.0E-104 | BE314182.1 | EST_HUMAN | 601150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 6073 | 16056 | 26205 | 1.52 | 1.0E-104 | BE314182.1 | EST_HUMAN | 601150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 6288 | 16152 | 26309 | 2.38 | 1.0E-104 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 7288 | 17164 | 27363 | 2.24 | 1.0E-104 | BF448230.1 | EST_HUMAN | nad16g11.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3365948 3' |
| 7370 | 17239 | 27442 | 4.66 | 1.0E-104 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 7370 | 17239 | 27443 | 4.66 | 1.0E-104 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7430 | 16443 | 26630 | 3.84 | 1.0E-104 | BF352841.1 | EST_HUMAN | IL3-HIT0619-080900-249-F07 HT0619 Homo sapiens cDNA |
| 7430 | 16443 | 26631 | 3.84 | 1.0E-104 | BF352841.1 | EST_HUMAN | IL3-HIT0619-080900-249-F07 HT0619 Homo sapiens cDNA |
| 7809 | 17659 | 27898 | 3.14 | 1.0E-104 | BE791713.1 | EST_HUMAN | 601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5' |
| 7809 | 17659 | 27899 | 3.14 | 1.0E-104 | BE791713.1 | EST_HUMAN | 601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5' |
| 7947 | 17797 | 28037 | 1.42 | 1.0E-104 | AV728070.1 | EST_HUMAN | AV728070 HTC Homo sapiens cDNA clone HTCBYA07 5' |
| 7966 | 17816 | 28057 | 4.51 | 1.0E-104 | AU130765.1 | EST_HUMAN | AU130765 NT2RP3 Homo sapiens cDNA clone NT2RP3001398 5' |
| 8014 | 17864 | 28110 | 4.24 | 1.0E-104 | U66535.1 | NT | Human beta4-integrin (ITGB4) gene, exons 19,20,21,22,23,24 and 25 |
| 8617 | 18484 | 28755 | 1.84 | 1.0E-104 | BE720191.1 | EST_HUMAN | RCO-HIT0885-310700-021-b09 HT0885 Homo sapiens cDNA |
| 8617 | 18484 | 28756 | 1.84 | 1.0E-104 | BE720191.1 | EST_HUMAN | RCO-HIT0885-310700-021-b09 HT0885 Homo sapiens cDNA |
| 8641 | 18505 | 28783 | 4.49 | 1.0E-104 | BF684288.1 | EST_HUMAN | 602141215F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302507 5' |
| 9842 | 19340 | | 1.37 | 1.0E-104 | BE393692.1 | EST_HUMAN | 601312181F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658676 5' |
| 277 | 12637 | 20062 | 2.86 | 1.0E-105 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 419 | 9986 | 19777 | 16.85 | 1.0E-105 | 4505160 | NT | Homo sapiens Meis1 (mouse) homolog (MEIS1) mRNA |
| 579 | 10517 | 20323 | 3.22 | 1.0E-105 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 579 | 10517 | 20324 | 3.22 | 1.0E-105 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 1777 | 11676 | 21553 | 1.16 | 1.0E-105 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 1884 | 11780 | 21655 | 1.75 | 1.0E-105 | D50918.1 | NT | Human mRNA for KIAA0128 gene, partial cds |
| 2142 | 12030 | 21928 | 1.84 | 1.0E-105 | AA318369.1 | EST_HUMAN | EST20609 Spleen l Homo sapiens cDNA 5' end similar to autimmune antigen Ku, p70/p80 subunit |
| 2689 | 12554 | | 0.87 | 1.0E-105 | AA584808.1 | EST_HUMAN | no10d05.s1 NCL_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100265 3' |
| 2975 | 12902 | | 2.57 | 1.0E-105 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 3307 | 13228 | 23032 | 0.93 | 1.0E-105 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 3307 | 13228 | 23033 | 0.93 | 1.0E-105 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 3592 | 13506 | | 1.26 | 1.0E-105 | 11425532 | NT | Homo sapiens dermatopontin (DPT), mRNA |
| 4008 | 13914 | 23689 | 2.15 | 1.0E-105 | AW061688.1 | EST_HUMAN | EST373761 MAGE resequences, MAGG Homo sapiens cDNA |
| 4638 | 14526 | 24313 | 0.84 | 1.0E-105 | BE868881.1 | EST_HUMAN | 601445823F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850156 5' |
| 4638 | 14526 | 24314 | 0.84 | 1.0E-105 | BE868881.1 | EST_HUMAN | 601445823F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850156 5' |
| 4855 | 14735 | | 3.74 | 1.0E-105 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 5044 | 14916 | 24690 | 0.95 | 1.0E-105 | AB018339.1 | NT | Homo sapiens mRNA for KIAA0796 protein, partial cds |
| 5095 | 14965 | 24740 | 2.23 | 1.0E-105 | AB020675.1 | NT | Homo sapiens mRNA for KIAA0866 protein, complete cds |
| 5161 | 14916 | 24690 | 1.3 | 1.0E-105 | AB018339.1 | NT | Homo sapiens mRNA for KIAA0796 protein, partial cds |
| 6167 | 15124 | 24840 | 3.06 | 1.0E-105 | 11419196 | NT | Homo sapiens GTPase activating protein-like (GAPL), mRNA |
| 6167 | 15124 | 24841 | 3.06 | 1.0E-105 | 11419196 | NT | Homo sapiens GTPase activating protein-like (GAPL), mRNA |
| 6679 | 16559 | 26754 | 6.43 | 1.0E-105 | T05087.1 | EST_HUMAN | EST02975 Fetal brain, Strategene (cat#936206) Homo sapiens cDNA clone HFBRCR32 |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 6894 | 16773 | 26967 | 1.8 | 1.0E-105 | AW007194.1 | EST_HUMAN | ws50c10.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2500626 3' similar to SW_ACSA_PENCH P36333 ACETYL-COENZYME A SYNTHETASE ; |
| 7234 | 17111 | 27304 | 2.99 | 1.0E-105 | AW016879.1 | EST_HUMAN | UH-H10p-abi-b-12-0-U1.s1 NCL_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2711782 3' |
| 8303 | 18181 | 28428 | 5.44 | 1.0E-105 | AF254822.1 | NT | Homo sapiens SMARCA4 isoform (SMARCA4) gene, complete cds, alternatively spliced |
| 8560 | 18430 | 28699 | 1.8 | 1.0E-105 | D63548.1 | NT | Homo sapiens COL4A6 gene for $\alpha 1(\text{IV})$ collagen, exon 31 |
| 8602 | 18469 | 28740 | 2.06 | 1.0E-105 | 7705936 | NT | Homo sapiens Ran binding protein 11 (LOC51194), mRNA |
| 8867 | 18679 | 28968 | 2.01 | 1.0E-105 | AW027554.1 | EST_HUMAN | ww74f07.x1 Soares_thymus_NHFTn Homo sapiens cDNA clone IMAGE:2535301 3' similar to TR:P87892 P87892 PROTEASE ; |
| 145 | 10119 | | 0.96 | 1.0E-106 | AW503208.1 | EST_HUMAN | UH-HF-BN0-akt-g-07-0-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 198 | 10170 | 19987 | 1.54 | 1.0E-106 | A1660055.1 | EST_HUMAN | tg79c01.x1 NCL_CGAP_U1 Homo sapiens cDNA clone IMAGE:2216008 3' |
| 531 | 10473 | 20286 | 1.77 | 1.0E-106 | AW965556.1 | EST_HUMAN | EST137629 MAGI resequences, MAGI Homo sapiens cDNA |
| 589 | 10527 | 20334 | 0.79 | 1.0E-106 | J00146.1 | NT | Human dihydrofolate reductase pseudogene (psi-hd1) |
| 590 | 10527 | 20334 | 1.21 | 1.0E-106 | J00146.1 | NT | Human dihydrofolate reductase pseudogene (psi-hd1) |
| 1508 | 11413 | 21272 | 2.66 | 1.0E-106 | AF145712.1 | NT | Homo sapiens soluble neuropilin-1 mRNA, complete cds |
| 1674 | 11576 | 21444 | 4.51 | 1.0E-106 | U48724.1 | NT | Human epidermal growth factor receptor (EGFR) precursor-mRNA, exon 4, partial cds |
| 1762 | 11661 | 21533 | 5.12 | 1.0E-106 | AA527446.1 | EST_HUMAN | ng41c05.s1 NCL_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element LTR3 repetitive element ; |
| 1762 | 11661 | 21534 | 5.12 | 1.0E-106 | AA527446.1 | EST_HUMAN | ng41c05.s1 NCL_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element LTR3 repetitive element ; |
| 2075 | 11965 | 21858 | 1.08 | 1.0E-106 | BE144286.1 | EST_HUMAN | MR0-H10165-140200-008-d10 HT0165 Homo sapiens cDNA |
| 2269 | 12153 | 22052 | 8.39 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2456 | 12333 | 22229 | 1.63 | 1.0E-106 | AF003528.1 | NT | Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 2557 | 12429 | 22322 | 1.25 | 1.0E-106 | U64675.2 | NT | Homo sapiens sperm membrane protein BS-63 mRNA, complete cds |
| 2559 | 12431 | 22324 | 1.94 | 1.0E-106 | BE260201.1 | EST_HUMAN | 601149783F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502461 5' |
| 2729 | 12591 | 22487 | 4.23 | 1.0E-106 | AL276526.1 | EST_HUMAN | ql76h10.x1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1878307 3' |
| 2795 | 11319 | 21183 | 2.97 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2795 | 11319 | 21184 | 2.97 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2911 | 12837 | 22635 | 5.01 | 1.0E-106 | AB037747.1 | NT | Homo sapiens mRNA for KIAA1326 protein, partial cds |
| 2911 | 12837 | 22636 | 5.01 | 1.0E-106 | AB037747.1 | NT | Homo sapiens mRNA for KIAA1326 protein, partial cds |
| 3143 | 13068 | 22867 | 2.36 | 1.0E-106 | 8922965 | NT | Homo sapiens hypothetical protein FLJ11273 (FLJ11273), mRNA |
| 3143 | 13068 | 22868 | 2.36 | 1.0E-106 | 8922965 | NT | Homo sapiens hypothetical protein FLJ11273 (FLJ11273), mRNA |
| 3328 | 13248 | 23053 | 0.8 | 1.0E-106 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 3394 | 13311 | 23109 | 0.98 | 1.0E-106 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 3394 | 13311 | 23110 | 0.98 | 1.0E-106 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3952 | 13860 | 23634 | 7.22 | 1.0E-106 | AW974650.1 | EST_HUMAN | EST386875 MAGE resequences, MAGN Homo sapiens cDNA |
| 3952 | 13860 | 23635 | 7.22 | 1.0E-106 | AW974650.1 | EST_HUMAN | EST386875 MAGE resequences, MAGN Homo sapiens cDNA |
| 4497 | 14391 | 24176 | 1.21 | 1.0E-106 | BE144286.1 | EST_HUMAN | MRO-HT0165-140200-008-d10 HT0165 Homo sapiens cDNA |
| 5183 | 15047 | | 1.21 | 1.0E-106 | L41644.1 | NT | Homo sapiens dystrophin gene, exon 41 |
| 5298 | 15219 | 25022 | 2.98 | 1.0E-106 | AA781155.1 | EST_HUMAN | aj24b09.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391225 3' similar to gb:X12433 PROTEIN PHPS1-2 (HUMAN); |
| 5711 | 15619 | 25722 | 6.78 | 1.0E-106 | BF679574.1 | EST_HUMAN | 602154012F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295067 5' |
| 5866 | 15772 | 25891 | 16.4 | 1.0E-106 | | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 5866 | 15772 | 25892 | 16.4 | 1.0E-106 | | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6361 | 16224 | 26385 | 5.59 | 1.0E-106 | AA663779.1 | EST_HUMAN | ae72e07.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:969732 3' similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN); |
| 6390 | 16252 | 26412 | 4.83 | 1.0E-106 | | NT | Homo sapiens XPMC2 protein (LOC57109), mRNA |
| 6431 | 16292 | 26453 | 1.35 | 1.0E-106 | BE292722.1 | EST_HUMAN | 601105736F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988345 5' |
| 6490 | 16348 | 26517 | 7.6 | 1.0E-106 | | NT | Homo sapiens sorting nexin 11 (SNX11), mRNA |
| 6490 | 16348 | 26518 | 7.6 | 1.0E-106 | | NT | Homo sapiens sorting nexin 11 (SNX11), mRNA |
| 6657 | 16537 | 26733 | 5.33 | 1.0E-106 | BE741408.1 | EST_HUMAN | 601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948463 5' |
| 6657 | 16537 | 26734 | 5.33 | 1.0E-106 | BE741408.1 | EST_HUMAN | 601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948463 5' |
| 6754 | 16633 | 26821 | 1.48 | 1.0E-106 | AI523066.1 | EST_HUMAN | ar68a07.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2127732 3' similar to gb:X06233 CALGRANULIN B (HUMAN); |
| 7052 | 16929 | 27120 | 3.16 | 1.0E-106 | AI654123.1 | EST_HUMAN | ty62a05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2283632 3' similar to SW:ICA6_HUMAN Q05084 69 KD ISLET CELL AUTOANTIGEN; |
| 7281 | 17158 | 27353 | 1.86 | 1.0E-106 | AA825307.1 | EST_HUMAN | oc67e08.s1 NCI_CGAP_G0B1 Homo sapiens cDNA clone IMAGE:1354790 3' |
| 7281 | 17158 | 27354 | 1.86 | 1.0E-106 | AA825307.1 | EST_HUMAN | oc67e08.s1 NCI_CGAP_G0B1 Homo sapiens cDNA clone IMAGE:1354790 3' |
| 7351 | 17219 | 27419 | 2.79 | 1.0E-106 | AI750447.1 | EST_HUMAN | cn03a04.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn03a04 random |
| 7424 | 17291 | 27501 | 1.86 | 1.0E-106 | AI479569.1 | EST_HUMAN | tm41f02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.t3 TAR1 PTR5 repetitive element; |
| 7424 | 17291 | 27502 | 1.86 | 1.0E-106 | AI479569.1 | EST_HUMAN | tm41f02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.t3 TAR1 PTR5 repetitive element; |
| 7803 | 17653 | 27890 | 1.32 | 1.0E-106 | BF027310.1 | EST_HUMAN | 601671674F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:39544403 5' |
| 7803 | 17653 | 27891 | 1.32 | 1.0E-106 | BF027310.1 | EST_HUMAN | 601671674F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:39544403 5' |
| 7880 | 17730 | 27975 | 5.83 | 1.0E-106 | AA604417.1 | EST_HUMAN | np57b10.s1 NCI_CGAP_B2 Homo sapiens cDNA clone IMAGE:1130395 3' |
| 7880 | 17730 | 27976 | 5.83 | 1.0E-106 | AA604417.1 | EST_HUMAN | np57b10.s1 NCI_CGAP_B2 Homo sapiens cDNA clone IMAGE:1130395 3' |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7901 | 17751 | 27990 | 1.86 | 1.0E-106 | AW363299.1 | EST_HUMAN | RCO-CT0318-201199-031-at1 CT0318 Homo sapiens cDNA |
| 8019 | 17869 | 28113 | 3.66 | 1.0E-106 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 8269 | 18149 | 28389 | 5.21 | 1.0E-106 | BF032755.1 | EST_HUMAN | 601453461F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857366 5' |
| 8269 | 18149 | 28390 | 5.21 | 1.0E-106 | BF032755.1 | EST_HUMAN | 601453461F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857366 5' |
| 8415 | 18289 | 28544 | 2.28 | 1.0E-106 | J05200.1 | NT | Human ryanodine receptor mRNA, complete cds |
| 8415 | 18289 | 28545 | 2.28 | 1.0E-106 | J05200.1 | NT | Human ryanodine receptor mRNA, complete cds |
| 9122 | 19540 | | 2.87 | 1.0E-106 | AW410405.1 | EST_HUMAN | fh05h11.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961644 5' |
| 9342 | 19022 | 25298 | 2.31 | 1.0E-106 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 9342 | 19022 | 25299 | 2.31 | 1.0E-106 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 9554 | 19162 | | 5.35 | 1.0E-106 | BE695905.1 | EST_HUMAN | RC1-CT0249-090800-024-d05 CT0249 Homo sapiens cDNA |
| 234 | 10203 | | 3.48 | 1.0E-107 | AJ271735.1 | NT | Homo sapiens Xq pseudautosomal region; segment 1/2 |
| 264 | 10229 | | 1.05 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 606 | 10542 | | 1.07 | 1.0E-107 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 614 | 10550 | 20361 | 1.7 | 1.0E-107 | AF155103.1 | NT | Homo sapiens NY-REN-25 antigen mRNA, partial cds |
| 796 | 10725 | 20565 | 0.86 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 868 | 10794 | 20644 | 1.16 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 953 | 10877 | 20724 | 10.67 | 1.0E-107 | AF154121.1 | NT | Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds |
| 1257 | 11164 | 21015 | 0.78 | 1.0E-107 | AB032253.1 | NT | Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds |
| 1551 | 11456 | 21314 | 2.13 | 1.0E-107 | BF087405.1 | EST_HUMAN | QV2-HT0540-120900-358-a05 HT0540 Homo sapiens cDNA |
| 1718 | 11619 | 21488 | 1.47 | 1.0E-107 | AF136275.1 | NT | Homo sapiens cathepsin Z precursor (CTS2) gene, exon 3 |
| 1797 | 11695 | 21571 | 0.95 | 1.0E-107 | AB007922.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 1797 | 11695 | 21572 | 0.95 | 1.0E-107 | AB007922.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 2161 | 12048 | 21949 | 1.26 | 1.0E-107 | U13729.1 | NT | Homo sapiens dipeptidyl peptidase IV (CD26) gene, exon 20 |
| 2487 | 12362 | 22257 | 0.86 | 1.0E-107 | BE732460.1 | EST_HUMAN | 601567619F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842309 5' |
| 2487 | 12362 | 22258 | 0.86 | 1.0E-107 | BE732460.1 | EST_HUMAN | 601567619F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842309 5' |
| 2976 | 12903 | 22701 | 1.94 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA |
| 2976 | 12903 | 22702 | 1.94 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA |
| 3081 | 12988 | 22779 | 2.62 | 1.0E-107 | 5902097 | NT | Homo sapiens SMT3 (suppressor of mit two 3, yeast) homolog 2 (SMT3H2), mRNA |
| 3754 | 13667 | 23450 | 3.92 | 1.0E-107 | AF020671.1 | NT | Homo sapiens myotubularin (MTM1) gene, exon 9 |
| 5575 | 15490 | 25667 | 3.26 | 1.0E-107 | BE867469.1 | EST_HUMAN | 601442558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846494 5' |
| 6356 | 16219 | 26380 | 1.52 | 1.0E-107 | AW503913.1 | EST_HUMAN | UI-HF-BN0-alf-c-08-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5' |
| 6356 | 16219 | 26381 | 1.52 | 1.0E-107 | AW503913.1 | EST_HUMAN | UI-HF-BN0-alf-c-08-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5' |
| 6445 | 16306 | 26471 | 1.63 | 1.0E-107 | A1765078.1 | EST_HUMAN | wh56h04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384791 3' |

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Table 4

Single Exon Probes Expressed In Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8087 | 17978 | 28228 | 2.73 | 1.0E-107 | A392850.1 | EST_HUMAN | ig10006.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2108363 3' similar to SW:AACT_DICD1 |
| 8316 | 18193 | 28443 | 1.82 | 1.0E-107 | L49141.1 | NT | P05095 ALPHA-ACTININ 3, NON MUSCULAR ; |
| 8327 | 18204 | 28453 | 1.98 | 1.0E-107 | BF666511.1 | EST_HUMAN | Homo sapiens neuroendocrine-specific protein (NSP) gene, exon 4 |
| 8638 | 18503 | 28779 | 9.12 | 1.0E-107 | BE540550.1 | EST_HUMAN | 602123963F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281039 5' |
| 8697 | 17881 | 28122 | 4.21 | 1.0E-107 | 11419701 | NT | 60106688F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452829 5' |
| 8697 | 17881 | 28123 | 4.21 | 1.0E-107 | 11419701 | NT | Homo sapiens HSPC049 protein (HSPC049), mRNA |
| 9187 | 19673 | | 3.94 | 1.0E-107 | AA001416.1 | EST_HUMAN | Homo sapiens HSPC049 protein (HSPC049), mRNA |
| 939 | 10864 | 20711 | 1.46 | 1.0E-108 | BE286042.1 | EST_HUMAN | ze45e01.s1 Soares retina N2b4-HR Homo sapiens cDNA clone IMAGE:361944 3' similar to contains THR.b1 |
| 1244 | 11151 | 20999 | 1.55 | 1.0E-108 | Y18000.1 | NT | THR repetitive element ; |
| 2282 | 12166 | 22063 | 7.41 | 1.0E-108 | AI686040.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 2282 | 12166 | 22064 | 7.41 | 1.0E-108 | AI686040.1 | EST_HUMAN | Homo sapiens NF2 gene |
| | | | | | | | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 2378 | 12258 | 22150 | 7.2 | 1.0E-108 | BE206694.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 3305 | 13226 | 23028 | 0.94 | 1.0E-108 | AF032897.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 3305 | 13226 | 23029 | 0.94 | 1.0E-108 | AF032897.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 3742 | 13654 | 23437 | 0.92 | 1.0E-108 | 5453855 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 4065 | 13967 | 23744 | 1.33 | 1.0E-108 | AW664438.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 4425 | 14320 | 24106 | 1.99 | 1.0E-108 | U72961.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 4425 | 14320 | 24107 | 1.99 | 1.0E-108 | U72961.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 4699 | 14885 | 24376 | 2.85 | 1.0E-108 | 7661979 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 4868 | 14748 | 24528 | 2.19 | 1.0E-108 | AJ008005.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 5366 | 15286 | 25120 | 1.53 | 1.0E-108 | AW384094.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 5393 | 15312 | 25166 | 2.77 | 1.0E-108 | BE869016.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 5393 | 15312 | 25167 | 2.77 | 1.0E-108 | BE869016.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 5732 | 15640 | 25745 | 5.06 | 1.0E-108 | AF264717.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |
| 5732 | 15640 | 25746 | 5.06 | 1.0E-108 | AF264717.1 | NT | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3632348 5' |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5789 | 16695 | 25804 | 1.37 | 1.0E-108 | AJ133269.1 | NT | Homo sapiens caveolin-1/2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2) |
| 6247 | 16113 | 26265 | 5.35 | 1.0E-108 | 11431857 | NT | Homo sapiens G protein-coupled receptor, family C, group 5, member B (GPCR5B), mRNA |
| 6399 | 16260 | 26421 | 3.34 | 1.0E-108 | 4758333 | NT | Homo sapiens delta-6 fatty acid desaturase (FADS6) mRNA |
| 6698 | 16578 | | 1.93 | 1.0E-108 | AF083500.1 | NT | Homo sapiens connective tissue growth factor-like protein precursor, mRNA, complete cds |
| 8202 | 15099 | 24891 | 2.77 | 1.0E-108 | Y12490.1 | NT | Homo sapiens mRNA for Golgi-associated microtubule-binding protein (GMAP-210) |
| 8593 | 18461 | 28731 | 4.26 | 1.0E-108 | AW966185.1 | EST_HUMAN | EST378258 MAGE resequences, MAGI Homo sapiens cDNA |
| 8677 | 18565 | | 2.03 | 1.0E-108 | 11441465 | NT | Homo sapiens G protein-coupled receptor 48 (GPR48), mRNA |
| 8706 | 12166 | 22063 | 4.14 | 1.0E-108 | AI686040.1 | EST_HUMAN | t891e10.x1 NCI_CGAP_P28 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 8706 | 12166 | 22064 | 4.14 | 1.0E-108 | AI686040.1 | EST_HUMAN | t891e10.x1 NCI_CGAP_P28 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 9357 | 19030 | 25303 | 2.79 | 1.0E-108 | AK024447.1 | NT | Homo sapiens mRNA for FLJ00037 protein, partial cds |
| 9736 | 19270 | | 5.59 | 1.0E-108 | BF346356.1 | EST_HUMAN | 80201857F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4154237 5' |
| 58 | 10044 | 19856 | 0.9 | 1.0E-109 | D86974.1 | NT | Human mRNA for KIAA0220 gene, partial cds |
| 212 | 10183 | 19997 | 0.92 | 1.0E-109 | 11422486 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 222 | 10192 | 20003 | 1.51 | 1.0E-109 | 11438391 | NT | Homo sapiens reticulocalbin 1, EF-hand calcium binding domain (RCN1), mRNA |
| 459 | 10403 | 20219 | 3.94 | 1.0E-109 | 4507712 | NT | Homo sapiens tetrapeptide repeat domain 2 (TTC2), mRNA |
| 583 | 10521 | 20328 | 14.84 | 1.0E-109 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 583 | 10521 | 20329 | 14.84 | 1.0E-109 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 1184 | 11095 | 20941 | 9.63 | 1.0E-109 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1), mRNA, complete cds |
| 1185 | 11095 | 20941 | 4.89 | 1.0E-109 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1), mRNA, complete cds |
| 1831 | 11728 | 21602 | 1.48 | 1.0E-109 | D13643.2 | NT | Homo sapiens mRNA for KIAA0018 protein, partial cds |
| 2194 | 12081 | 21985 | 2.03 | 1.0E-109 | AL103284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 2204 | 12091 | 21993 | 1.97 | 1.0E-109 | Y17123.1 | NT | Homo sapiens SNF5/INI1 gene, exon 6 |
| 2581 | 12452 | 22344 | 3.88 | 1.0E-109 | AI022328.1 | EST_HUMAN | ow65a01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:002197 002197 CIRCULATING CATHODIC ANTIGEN. ; |
| 2581 | 12452 | 22345 | 3.88 | 1.0E-109 | AI022328.1 | EST_HUMAN | ow65a01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:002197 002197 CIRCULATING CATHODIC ANTIGEN. ; |
| 2582 | 12453 | 22346 | 2.75 | 1.0E-109 | 4504206 | NT | Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A), mRNA |
| 3020 | 12948 | 22740 | 1.88 | 1.0E-109 | N85190.1 | EST_HUMAN | J2816F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2816 5' similar to ZINC FINGER PROTEIN ZNF43 |
| 3342 | 13262 | 23088 | 1.45 | 1.0E-109 | AW893192.1 | EST_HUMAN | CM3-NN0009-150400-150-F10 NN0009 Homo sapiens cDNA |
| 3342 | 13262 | 23089 | 1.45 | 1.0E-109 | AW893192.1 | EST_HUMAN | CM3-NN0009-150400-150-F10 NN0009 Homo sapiens cDNA |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 3474 | 13390 | 23195 | 1.2 | 1.0E-109 | AF240698.1 | NT | Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds |
| 3767 | 13680 | | 1.53 | 1.0E-109 | BE146144.1 | EST_HUMAN | MRO-H70209-110400-108-a04 H70209 Homo sapiens cDNA |
| 3911 | 13821 | 23601 | 1.54 | 1.0E-109 | AB011181.2 | NT | Homo sapiens mRNA for KIAA0609 protein, partial cds |
| 3911 | 13821 | 23602 | 1.54 | 1.0E-109 | AB011181.2 | NT | Homo sapiens mRNA for KIAA0609 protein, partial cds |
| 4054 | 13956 | 23732 | 3.67 | 1.0E-109 | AI655417.1 | EST_HUMAN | ts98e06.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2293330 3' similar to WP:F53A2.8 CE16100 ; |
| 4070 | 13972 | 23749 | 1.02 | 1.0E-109 | AA662274.1 | EST_HUMAN | nu93c12.s1 NCL_CGAP_P22 Homo sapiens cDNA clone IMAGE:1218262 3' similar to SW:GTT2_HUMAN P30712 GLUTATHIONE S-TRANSFERASE THETA 2 ; |
| 4070 | 13972 | 23750 | 1.02 | 1.0E-109 | AA662274.1 | EST_HUMAN | nu93c12.s1 NCL_CGAP_P22 Homo sapiens cDNA clone IMAGE:1218262 3' similar to SW:GTT2_HUMAN P30712 GLUTATHIONE S-TRANSFERASE THETA 2 ; |
| 4304 | 14202 | 23986 | 2.25 | 1.0E-109 | 4504206 | NT | Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA |
| 4496 | 14390 | 24175 | 1.19 | 1.0E-109 | 7662083 | NT | Homo sapiens KIAA0377 gene product (KIAA0377), mRNA |
| 4839 | 14720 | 24503 | 1.04 | 1.0E-109 | RI15400.1 | EST_HUMAN | ye49e06.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:53057 5' |
| 4984 | 14859 | 24626 | 0.86 | 1.0E-109 | BE293673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2989636 5' |
| 4984 | 14859 | 24627 | 0.86 | 1.0E-109 | BE293673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2989636 5' |
| 5254 | 15176 | 24950 | 2.31 | 1.0E-109 | 5174622 | NT | Homo sapiens placental protein 11 (serine proteinase) (P11) mRNA |
| 5648 | 15364 | | 1.48 | 1.0E-109 | BE179356.1 | EST_HUMAN | RC1-H70615-200400-022-d04 H70615 Homo sapiens cDNA |
| 6465 | 16325 | 26491 | 3.66 | 1.0E-109 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 6466 | 16326 | 26492 | 5.01 | 1.0E-109 | BF182707.1 | EST_HUMAN | 601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5' |
| 6466 | 16326 | 26493 | 5.01 | 1.0E-109 | BF182707.1 | EST_HUMAN | 601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5' |
| 6753 | 16632 | 26820 | 1.36 | 1.0E-109 | AL049784.1 | NT | Novel human gene mapping to chromosome 13 |
| 6820 | 16699 | 26892 | 1.23 | 1.0E-109 | AW749130.1 | EST_HUMAN | PMO-B70340-091299-002-e05 B70340 Homo sapiens cDNA |
| 7030 | 16907 | | 1.72 | 1.0E-109 | AA077498.1 | EST_HUMAN | 7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01 |
| 7071 | 16948 | 27139 | 5.71 | 1.0E-109 | BE787540.1 | EST_HUMAN | 601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5' |
| 7071 | 16948 | 27140 | 5.71 | 1.0E-109 | BE787540.1 | EST_HUMAN | 601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5' |
| 7326 | 17202 | 27402 | 2 | 1.0E-109 | H84890.1 | EST_HUMAN | ys90g08.r1 Soares retina N2b5HR Homo sapiens cDNA clone IMAGE:222110 5' similar to SP:A53491 A53491 BUMETANIDE-SENSITIVE NA-K-C1 COTRANSPORTER - SPINX ; |
| 7462 | 17322 | 27528 | 1.41 | 1.0E-109 | F06604.1 | EST_HUMAN | HSCIEC121 normalized infant brain cDNA Homo sapiens cDNA clone c-1ec12 |
| 8155 | 18043 | 28294 | 2.93 | 1.0E-109 | BE540909.1 | EST_HUMAN | 601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5' |
| 8155 | 18043 | 28295 | 2.93 | 1.0E-109 | BE540909.1 | EST_HUMAN | 601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5' |
| 8183 | 18069 | 28318 | 14.2 | 1.0E-109 | BF694831.1 | EST_HUMAN | 602080724F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245341 5' |
| 8335 | 18212 | 28464 | 2.12 | 1.0E-109 | 7662279 | NT | Homo sapiens KIAA0744 gene product; histone deacetylase 7 (KIAA0744), mRNA |
| 8335 | 18212 | 28465 | 2.12 | 1.0E-109 | 7662279 | NT | Homo sapiens KIAA0744 gene product; histone deacetylase 7 (KIAA0744), mRNA |
| 8468 | 18341 | 28606 | 1.88 | 1.0E-109 | AU121370.1 | EST_HUMAN | AU121370 HEMBB1 Homo sapiens cDNA clone HEMBB1002890 5' |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8676 | 18564 | 28848 | 2.19 | 1.0E-109 | 4502838 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA |
| 8710 | 18527 | 28810 | 4.83 | 1.0E-109 | W16510.1 | EST_HUMAN | z08h12.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:301439 5' similar to |
| 9259 | 12091 | 21993 | 1.65 | 1.0E-109 | Y17123.1 | NT | PIR:S43969 S43969 p54-beta stress-activated protein kinases - rat; |
| 9594 | 19176 | 25275 | 2.8 | 1.0E-109 | AB011399.1 | NT | Homo sapiens SNF5/INI1 gene, exon 6 |
| 3 | 9990 | 19781 | 1.48 | 1.0E-110 | 7549804 | NT | Homo sapiens gene for AF-6, complete cds |
| 34 | 10021 | 19817 | 3.88 | 1.0E-110 | 5803073 | NT | Homo sapiens deiodinase, iodothyronine, type II (DIO2), transcript variant 2, mRNA |
| 34 | 10021 | 19818 | 3.88 | 1.0E-110 | 5803073 | NT | Homo sapiens leucine-zipper-like transcriptional regulator, 1 (LZTR1), mRNA |
| 75 | 10059 | 19876 | 30.63 | 1.0E-110 | C04498.1 | EST_HUMAN | Homo sapiens leucine-zipper-like transcriptional regulator, 1 (LZTR1), mRNA |
| 104 | 9990 | 19781 | 1.67 | 1.0E-110 | 7549804 | NT | C04498 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NH3C3467 |
| 291 | 10255 | 20076 | 0.91 | 1.0E-110 | D87291.1 | NT | Homo sapiens deiodinase, iodothyronine, type II (DIO2), transcript variant 2, mRNA |
| 516 | 10458 | 20269 | 1.16 | 1.0E-110 | U84550.1 | NT | Human mRNA for inward rectifier potassium channel, complete cds |
| 1163 | 11076 | 20921 | 1.09 | 1.0E-110 | 5031620 | NT | Human dystrobrevin (DTN) gene, exon 20 |
| 1258 | 11165 | 21016 | 1.01 | 1.0E-110 | AB032253.1 | NT | Homo sapiens calcitonin receptor-like (CALCRL) mRNA |
| 1879 | 11775 | 21650 | 1.5 | 1.0E-110 | BE379477.1 | EST_HUMAN | Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds |
| 2012 | 11904 | | 1.86 | 1.0E-110 | BF508996.1 | EST_HUMAN | 601237545F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609663 5' |
| 2810 | 12739 | | 1.02 | 1.0E-110 | 4503098 | NT | UI-H-B14-eos-b-05-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3' |
| 3048 | 12975 | | 1.07 | 1.0E-110 | U78027.1 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 3158 | 13083 | 22885 | 1.87 | 1.0E-110 | 11436041 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 3158 | 13083 | 22886 | 1.87 | 1.0E-110 | 11436041 | NT | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 3966 | 13873 | 23650 | 0.92 | 1.0E-110 | BE018556.1 | EST_HUMAN | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 4533 | 14426 | 24207 | 2.06 | 1.0E-110 | AI017213.1 | EST_HUMAN | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 4555 | 14447 | 24232 | 2.08 | 1.0E-110 | AU117812.1 | EST_HUMAN | bb82a05.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048848 5' similar to TR:O60312 O60312 KIAA0566 PROTEIN ; |
| 4898 | 14778 | | 2.34 | 1.0E-110 | 7662441 | NT | ou32b10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1627963 3' similar to |
| 5237 | 15161 | 24929 | 1.9 | 1.0E-110 | BE299406.1 | EST_HUMAN | SW:N121_RAT_P52591 NUCLEAR ENVELOPE PORE MEMBRANE PROTEIN POM 121 ; |
| 5511 | 15429 | 25492 | 7.34 | 1.0E-110 | 11419323 | NT | AU117812 HEMBA1 Homo sapiens cDNA clone HEMBA1002241 5' |
| 5511 | 15429 | 25493 | 7.34 | 1.0E-110 | 11419323 | NT | Homo sapiens KIAA1002 protein (KIAA1002), mRNA |
| 6032 | 19458 | 26088 | 4.36 | 1.0E-110 | M55112.1 | NT | 601118710F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028538 5' |
| 6391 | 16253 | 26413 | 10.04 | 1.0E-110 | AV714276.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 6391 | 16253 | 26414 | 10.04 | 1.0E-110 | AV714276.1 | EST_HUMAN | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 6409 | 16270 | 26432 | 2.7 | 1.0E-110 | AB020675.1 | NT | Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 7 |
| | | | | | | | AV714276 DCB Homo sapiens cDNA clone DCB03E01 5' |
| | | | | | | | AV714276 DCB Homo sapiens cDNA clone DCB03E01 5' |
| | | | | | | | Homo sapiens mRNA for KIAA0868 protein, partial cds |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7523 | 17374 | 27583 | 2.91 | 1.0E-110 | AW838394.1 | EST_HUMAN | QV2.LT0053-020400-119-e04 LT0053 Homo sapiens cDNA |
| 7915 | 17765 | 28004 | 4.27 | 1.0E-110 | 11432732 | NT | Homo sapiens galactokinase 2 (GALK2), mRNA |
| 8130 | 18018 | 28266 | 3.7 | 1.0E-110 | Y12337.1 | NT | H. sapiens mRNA for myotonic dystrophy protein kinase like protein |
| 8334 | 18211 | 28462 | 3.49 | 1.0E-110 | BE734357.1 | EST_HUMAN | 601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5' |
| 8334 | 18211 | 28463 | 3.49 | 1.0E-110 | BE734357.1 | EST_HUMAN | 601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5' |
| 8740 | 17889 | 28133 | 2.43 | 1.0E-110 | AA446529.1 | EST_HUMAN | zw67g02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781298 5' similar to TR:G1145816 |
| 9081 | 18857 | | 4.15 | 1.0E-110 | BE897218.1 | EST_HUMAN | G1145816 FKBP54; |
| 9204 | 18935 | | 5.78 | 1.0E-110 | AW062258.1 | EST_HUMAN | 601439784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924548 5' |
| 9444 | 19080 | | 1.63 | 1.0E-110 | AB011399.1 | NT | IL0-BT0163-040899-094-g10 BT0163 Homo sapiens cDNA |
| 9578 | 19684 | | 5.07 | 1.0E-110 | BF364546.1 | EST_HUMAN | Homo sapiens gene for AF-6, complete cds |
| 168 | 10140 | | 16.85 | 1.0E-111 | U43701.1 | NT | PM3-NN1082-140900-006-f12 NN1082 Homo sapiens cDNA |
| 189 | 10161 | 19978 | 1.02 | 1.0E-111 | 4758807 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 718 | 10650 | | 1.87 | 1.0E-111 | BF035327.1 | EST_HUMAN | Homo sapiens ras GTPase activating protein-like (NGAP) mRNA |
| 726 | 10658 | 20489 | 3.58 | 1.0E-111 | 89303092 | NT | 601458531F1 NIH_MGC_86 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 911 | 10835 | 20684 | 73.62 | 1.0E-111 | M25142.1 | NT | Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA |
| 3642 | 13556 | 23342 | 1.17 | 1.0E-111 | 6912641 | NT | Human cardiac alpha-myosin heavy chain (MYH6) gene, exons 32 to 34 |
| 3642 | 13556 | 23343 | 1.17 | 1.0E-111 | 6912641 | NT | Homo sapiens sex comb on midleg homolog 1 (SCMH1), mRNA |
| 4080 | 13982 | 23760 | 1.08 | 1.0E-111 | 7661669 | NT | Homo sapiens sex comb on midleg homolog 1 (SCMH1), mRNA |
| 4235 | 14133 | 23909 | 4.45 | 1.0E-111 | K02268.1 | NT | Homo sapiens DKFZP434D156 protein (DKFZP434D156), mRNA |
| 5364 | 15284 | 25117 | 2.82 | 1.0E-111 | AA151017.1 | EST_HUMAN | Human enkephalin B (enkb) gene, exon 4 and 3' flank and complete cds |
| 5364 | 15284 | 25118 | 2.82 | 1.0E-111 | AA151017.1 | EST_HUMAN | z147b07.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN); |
| 5675 | 15584 | 25685 | 1.71 | 1.0E-111 | A1344679.1 | EST_HUMAN | z147b07.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN); |
| 6402 | 16263 | 26423 | 3.03 | 1.0E-111 | BF366228.1 | EST_HUMAN | qp09g12.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1917574 3' similar to gb:M29893 RAS-RELATED PROTEIN RAL-A (HUMAN); |
| 6579 | 16437 | 26622 | 2.29 | 1.0E-111 | AA133914.1 | EST_HUMAN | IL2-NT0101-280700-114-E03 NT0101 Homo sapiens cDNA |
| 6795 | 16874 | 26866 | 3.13 | 1.0E-111 | U66533.1 | NT | z162c12.r1 Striatagene muscle 937209 Homo sapiens cDNA clone IMAGE:562774 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN); |
| 7113 | 16990 | | 10.8 | 1.0E-111 | BF214902.1 | EST_HUMAN | Human beta4-integrin (ITGB4) gene, exon 13 |
| 7149 | 17026 | 27221 | 13.75 | 1.0E-111 | X17033.1 | NT | 601847132F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4078303 5' |
| 7149 | 17026 | 27222 | 13.75 | 1.0E-111 | X17033.1 | NT | Human mRNA for integrin alpha-2 subunit |
| 7251 | 17128 | 27321 | 3.26 | 1.0E-111 | AF091395.1 | NT | Human mRNA for integrin alpha-2 subunit |
| | | | | | | | Homo sapiens Trio isoform mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 7840 | 17690 | 27935 | 1.51 | 1.0E-111 | AA504160.1 | EST_HUMAN | aa58g02.st1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:825170 3' similar to gb:L09235 |
| 7893 | 17743 | 27986 | 6.35 | 1.0E-111 | AA131248.1 | EST_HUMAN | VACUOLAR ATP SYNTHASE CATALYTIC SUBUNIT A, UBIQUITOUS (HUMAN); |
| 8401 | 18277 | 28529 | 4.52 | 1.0E-111 | U68159.1 | NT | z31f01.r1 Soares pregnant uterus_NHPU Homo sapiens cDNA clone IMAGE:503545 5' |
| 9038 | 18825 | 29110 | 3.04 | 1.0E-111 | 11417901 | NT | Human thrombopoietin receptor (MPL) gene, exons 1,2,3,4,5 and 6 |
| 9886 | 19489 | 25130 | 1.69 | 1.0E-111 | W22562.1 | EST_HUMAN | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 9959 | 19422 | 25171 | 1.39 | 1.0E-111 | 11430460 | NT | 72C9 Human retina cDNA Tsp509I-cleaved sublibrary Homo sapiens cDNA not directional |
| 9959 | 19422 | 25172 | 1.39 | 1.0E-111 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 592 | 10528 | 20335 | 2.66 | 1.0E-112 | 4501854 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 594 | 10530 | 20337 | 4.49 | 1.0E-112 | U29103.1 | NT | Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA |
| 594 | 10530 | 20338 | 4.49 | 1.0E-112 | U29103.1 | NT | Human steroidogenic acute regulatory protein (STAR) gene, exon 5 |
| 616 | 10552 | 20363 | 1.48 | 1.0E-112 | BF509039.1 | EST_HUMAN | Human steroidogenic acute regulatory protein (STAR) gene, exon 5 |
| 616 | 10552 | 20364 | 1.48 | 1.0E-112 | BF509039.1 | EST_HUMAN | UI-H-B14-act-g-04-0-J1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023 3' |
| 985 | 10908 | 20753 | 2.78 | 1.0E-112 | AF157623.1 | NT | UI-H-B14-act-g-04-0-J1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023 3' |
| 1046 | 10964 | 20805 | 1.72 | 1.0E-112 | P52742 | SWISSPROT | Homo sapiens HTRA serine protease (PRSS1) gene, complete cds |
| 1658 | 11560 | 21424 | 5.88 | 1.0E-112 | 7662125 | NT | ZINC FINGER PROTEIN 135 |
| 1658 | 11560 | 21425 | 5.88 | 1.0E-112 | 7662125 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 2460 | 12337 | 22231 | 2.45 | 1.0E-112 | BE866859.1 | EST_HUMAN | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 3809 | 13721 | 23510 | 0.83 | 1.0E-112 | BE076073.1 | EST_HUMAN | 601442674F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848858 5' |
| 4646 | 14533 | 24321 | 5.12 | 1.0E-112 | AB037832.1 | NT | MR2-BT0590-090300-113-409 BT0590 Homo sapiens cDNA |
| 4646 | 14533 | 24322 | 5.12 | 1.0E-112 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 5170 | 15036 | 24804 | 0.94 | 1.0E-112 | 9055269 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 5477 | 15397 | 25463 | 33.34 | 1.0E-112 | N46046.1 | EST_HUMAN | Homo sapiens low density lipoprotein receptor related protein-deleted in tumor (LRPDI), mRNA |
| 6340 | 16203 | 26364 | 1.81 | 1.0E-112 | 11416777 | NT | Y35d07.r1 Soares melanocyte 2N1bHM Homo sapiens cDNA clone IMAGE:273229 5' |
| 6340 | 16203 | 26365 | 1.81 | 1.0E-112 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 6766 | 16645 | 26834 | 1.65 | 1.0E-112 | AU118051.1 | EST_HUMAN | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 7181 | 17058 | 27247 | 2.25 | 1.0E-112 | BE867635.1 | EST_HUMAN | AJ118051 HEMBA1 Homo sapiens cDNA clone HEMBA1002773 5' |
| 7181 | 17058 | 27248 | 2.25 | 1.0E-112 | BE867635.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 7993 | 17543 | 27767 | 2.09 | 1.0E-112 | BF111413.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 8159 | 18047 | 28299 | 4.25 | 1.0E-112 | AW863327.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 8318 | 18195 | 28445 | 2.86 | 1.0E-112 | AJ249900.1 | NT | 7130g07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3523020 3' similar to TR:Q9VW35 Q9VW35 CG8743 PROTEIN. ; |
| | | | | | | | MR3-SN0009-100400-106-b12 SN0009 Homo sapiens cDNA |
| | | | | | | | Homo sapiens mRNA for secreted modular calcium-binding protein (smoc1 gene) |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 8445 | 18319 | 28578 | 1.72 | 1.0E-112 | BE280479.1 | EST_HUMAN | 601155323F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138989 5' |
| 8500 | 18373 | 28637 | 1.75 | 1.0E-112 | AI792603.1 | EST_HUMAN | qk24c08.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:Q64362 Q64362 FUSED TOES ; |
| 8500 | 18373 | 28638 | 1.75 | 1.0E-112 | AI792603.1 | EST_HUMAN | qk24c08.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:Q64362 Q64362 FUSED TOES ; |
| 8521 | 18393 | 28657 | 5 | 1.0E-112 | AW377670.1 | EST_HUMAN | PM0-CT0237-141099-001-h02 CT0237 Homo sapiens cDNA |
| 725 | 10657 | 20487 | 3.71 | 1.0E-113 | AI365586.1 | EST_HUMAN | ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 725 | 10657 | 20488 | 3.71 | 1.0E-113 | AI365586.1 | EST_HUMAN | ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 927 | 10852 | 20700 | 6.32 | 1.0E-113 | M11965.1 | NT | Human X-linked phosphoglycerate kinase gene, exon 8 |
| 1523 | 11428 | 21286 | 2.94 | 1.0E-113 | AI365586.1 | EST_HUMAN | ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 2048 | 11939 | 21833 | 1.18 | 1.0E-113 | BF515218.1 | EST_HUMAN | UHH-BW1-ant-f-03-0-UJ.st NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3082876 3' |
| 2405 | 12282 | 22179 | 0.96 | 1.0E-113 | AJ006976.1 | NT | Homo sapiens PLP gene |
| 3091 | 13018 | 22813 | 2.34 | 1.0E-113 | AJ223948.1 | NT | Homo sapiens mRNA for putative RNA helicase, 3' end |
| 5035 | 14907 | 24677 | 0.95 | 1.0E-113 | 7657065 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 5035 | 14907 | 24678 | 0.95 | 1.0E-113 | 7657065 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 5211 | 19524 | | 16.27 | 1.0E-113 | BE780858.1 | EST_HUMAN | 601469465F1 NIH_MGC_97 Homo sapiens cDNA clone IMAGE:3872536 5' |
| 5377 | 15297 | 25144 | 6.33 | 1.0E-113 | AU127214.1 | EST_HUMAN | AU127214 NT2RP2 Homo sapiens cDNA clone NT2RP2000807 5' |
| 5608 | 15523 | 25605 | 3.92 | 1.0E-113 | AU140291.1 | EST_HUMAN | AU140291 PLACE2 Homo sapiens cDNA clone PLACE2000274 5' |
| 5699 | 15608 | 25710 | 2.05 | 1.0E-113 | 11525737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GALNAc-T8) (GALNT8), mRNA |
| 7257 | 17134 | 27326 | 2.95 | 1.0E-113 | BE382842.1 | EST_HUMAN | 601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5' |
| 7257 | 17134 | 27327 | 2.95 | 1.0E-113 | BE382842.1 | EST_HUMAN | 601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5' |
| 7656 | 17506 | 27731 | 1.29 | 1.0E-113 | 11429367 | NT | Homo sapiens transmembrane protein 2 (TMEM2), mRNA |
| 8466 | 18339 | 28604 | 1.73 | 1.0E-113 | AW500519.1 | EST_HUMAN | UIHF-BN0-akj-b-12-0-UJ.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077326 5' |
| 8550 | 15719 | 25832 | 2.07 | 1.0E-113 | 6006002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 8550 | 15719 | 25833 | 2.07 | 1.0E-113 | 6006002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 8584 | 18452 | 28721 | 3.44 | 1.0E-113 | BE292968.1 | EST_HUMAN | 601105529F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988366 5' |
| 629 | 10566 | 20379 | 7.66 | 1.0E-114 | T70551.1 | EST_HUMAN | yd15c01.s1 Scores fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108288 3' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); contains Alu repetitive element; |
| 1055 | 10972 | 20815 | 1.31 | 1.0E-114 | 8923087 | NT | Homo sapiens hypofibrotic protein FLJ20080 (FLJ20080), mRNA |
| 1291 | 11198 | 21053 | 3.47 | 1.0E-114 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1648 | 11552 | 21413 | 5.53 | 1.0E-114 | 6679073 | NT | Homo sapiens nucleoporin-like protein 1 (NLP_1), mRNA |
| 2773 | 10025 | 19823 | 0.82 | 1.0E-114 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 2773 | 10025 | 19824 | 0.82 | 1.0E-114 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 3092 | 13019 | 22814 | 2.29 | 1.0E-114 | X04086.1 | NT | Human gene for catalase (EC 1.11.1.6) exon 2 mapping to chromosome 11, band p13 |
| 3135 | 13060 | 22859 | 1.2 | 1.0E-114 | BF206374.1 | EST_HUMAN | 601869332F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100214 5' |
| 3934 | 13943 | 23621 | 1.95 | 1.0E-114 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 5120 | 14988 | 24762 | 1.2 | 1.0E-114 | AA194468.1 | EST_HUMAN | zq05e05.f1 Striatagene muscle 937209 Homo sapiens cDNA clone IMAGE:628932 5' similar to contains MER22 t3 MER22 repetitive element |
| 5121 | 14989 | 24763 | 2.31 | 1.0E-114 | AF004849.1 | NT | Homo sapiens PKY protein kinase mRNA, complete cds |
| 5316 | 15237 | 25040 | 1.37 | 1.0E-114 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 5316 | 15237 | 25041 | 1.37 | 1.0E-114 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 6316 | 16179 | 26338 | 7.08 | 1.0E-114 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 6316 | 16179 | 26339 | 7.08 | 1.0E-114 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 6606 | 16486 | 26873 | 1.86 | 1.0E-114 | 4557600 | NT | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2) mRNA |
| 6748 | 16927 | 26814 | 1.73 | 1.0E-114 | A1363139.1 | EST_HUMAN | qy68d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2017163 3' |
| 6748 | 16627 | 26815 | 1.73 | 1.0E-114 | A1363139.1 | EST_HUMAN | qy68d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2017163 3' |
| 7048 | 16925 | 27116 | 3.39 | 1.0E-114 | U63041.1 | NT | Human neural cell adhesion molecule CD56 mRNA, complete cds |
| 7090 | 16967 | 27161 | 6.35 | 1.0E-114 | AB011133.1 | NT | Homo sapiens mRNA for KIAA0561 protein, partial cds |
| 7090 | 16967 | 27162 | 6.35 | 1.0E-114 | AB011133.1 | NT | Homo sapiens mRNA for KIAA0561 protein, partial cds |
| 7418 | 17285 | 27859 | 3.79 | 1.0E-114 | AF327455.1 | EST_HUMAN | cd03ff05.x1 NIH_MGC_2 Homo sapiens cDNA clone IMAGE:2846744 5' |
| 7447 | 16459 | 26652 | 3.13 | 1.0E-114 | AF077754.1 | NT | Homo sapiens tyrosine kinase pp60c-src (SRC) gene, exon 12 and partial cds |
| 7844 | 17694 | 27940 | 1.31 | 1.0E-114 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| | | | | | | | ba73g12.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2906086 5' similar to gb:X17206 40S RIBOSOMAL PROTEIN S4 (HUMAN); gb:M20632 Mouse LLRep3 protein mRNA from a repetitive element, complete (MOUSE); |
| 8167 | 18055 | | 7.14 | 1.0E-114 | BE302666.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 8527 | 18399 | 28666 | 4.58 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 8527 | 18399 | 28667 | 4.58 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 8834 | 18647 | 28932 | 2.86 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 8834 | 18647 | 28933 | 2.86 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cda Homo sapiens cDNA clone cdABA08 5' |
| 9479 | 19748 | | 3.21 | 1.0E-114 | 11418041 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 9729 | 19266 | 25222 | 3.06 | 1.0E-114 | 11034850 | NT | Homo sapiens hypothetical protein (DJ1042K10.2), mRNA |
| 9729 | 19266 | 25223 | 3.06 | 1.0E-114 | 11034850 | NT | Homo sapiens hypothetical protein (DJ1042K10.2), mRNA |
| 21 | 10008 | 19801 | 3.36 | 1.0E-115 | 4758111 | NT | Homo sapiens HLA-B associated transcript-1 (D6S81E) mRNA |
| 125 | 10099 | 19920 | 0.95 | 1.0E-115 | 4505938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 129 | 10103 | | 1.99 | 1.0E-115 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 289 | 10263 | 20073 | 2.17 | 1.0E-115 | AW804759.1 | EST_HUMAN | QV4-UM0094-300300-156-b08 UM0094 Homo sapiens cDNA |
| 525 | 10467 | 20278 | 1.08 | 1.0E-115 | AI339206.1 | EST_HUMAN | q06f01.x1 NCL CGAP GC4 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00536 O00536 TTF-I INTERACTING PEPTIDE 5; |
| 525 | 10467 | 20279 | 1.08 | 1.0E-115 | AI339206.1 | EST_HUMAN | q06f01.x1 NCL CGAP GC4 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00536 O00536 TTF-I INTERACTING PEPTIDE 5; |
| 769 | 10699 | 20537 | 1.83 | 1.0E-115 | 5174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 769 | 10699 | 20538 | 1.83 | 1.0E-115 | 5174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 771 | 10701 | 20540 | 49.82 | 1.0E-115 | 4503794 | NT | Homo sapiens ferritin, heavy polypeptide 1 (FTH1) mRNA |
| 1539 | 11443 | 21301 | 0.92 | 1.0E-115 | AF229180.1 | NT | Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds |
| 1539 | 11443 | 21302 | 0.92 | 1.0E-115 | AF229180.1 | NT | Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds |
| 1785 | 11683 | 21561 | 3.14 | 1.0E-115 | AJ277892.1 | NT | Homo sapiens partial TTN gene for titin |
| 1798 | 11696 | 21573 | 1.42 | 1.0E-115 | U76027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 2034 | 11925 | 21817 | 0.87 | 1.0E-115 | BE745469.1 | EST_HUMAN | 601579838F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928832 5' |
| 2034 | 11925 | 21818 | 0.87 | 1.0E-115 | BE745469.1 | EST_HUMAN | 601579838F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928832 5' |
| 2820 | 12749 | | 1.76 | 1.0E-115 | AW804759.1 | EST_HUMAN | QV4-UM0094-300300-156-b08 UM0094 Homo sapiens cDNA |
| 3077 | 13004 | 22795 | 2.1 | 1.0E-115 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 3077 | 13004 | 22796 | 2.1 | 1.0E-115 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 3427 | 13344 | 23149 | 4.03 | 1.0E-115 | AJ277892.1 | NT | Homo sapiens partial TTN gene for titin |
| 3966 | 13864 | 23640 | 4.04 | 1.0E-115 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 4189 | 14069 | 23844 | 1.09 | 1.0E-115 | AL137163.1 | NT | Novel human gene mapping to chromosome X |
| 4301 | 14199 | 23983 | 3.41 | 1.0E-115 | 6912659 | NT | Homo sapiens sir2-like 3 (SIRT3), mRNA |
| 4335 | 14232 | 24014 | 3.83 | 1.0E-115 | 4758279 | NT | Homo sapiens EphA4 (EPHA4) mRNA |
| 4578 | 14468 | 24254 | 2.58 | 1.0E-115 | AL098857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 4578 | 14468 | 24255 | 2.58 | 1.0E-115 | AL098857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 4813 | 14696 | 24482 | 2.96 | 1.0E-115 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 4813 | 14696 | 24483 | 2.96 | 1.0E-115 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5279 | 15201 | 24977 | 1.75 | 1.0E-115 | AW970335.1 | EST_HUMAN | EST382416 IMAGE resequences, MAGK Homo sapiens cDNA |
| 5330 | 15250 | 25055 | 7.22 | 1.0E-115 | BF666387.1 | EST_HUMAN | 602119346F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276738 5' |
| 5402 | 15321 | 25369 | 2.05 | 1.0E-115 | 11426128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 5402 | 15321 | 25370 | 2.05 | 1.0E-115 | 11426128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 5852 | 15758 | 25876 | 12.92 | 1.0E-115 | 11426038 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63436), mRNA |
| 5933 | 15838 | 25960 | 1.93 | 1.0E-115 | 7661883 | NT | Homo sapiens KIAA0054 gene product, Helicase (KIAA0054), mRNA |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 5933 | 15838 | 25961 | 1.93 | 1.0E-115 | 7661883 | NT | Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA |
| 6313 | 16176 | 26333 | 1.55 | 1.0E-115 | A1076598.1 | EST_HUMAN | oz31a06.x1 Soares_tota_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676914 3' |
| 6313 | 16176 | 26334 | 1.55 | 1.0E-115 | A1076598.1 | EST_HUMAN | oz31a06.x1 Soares_tota_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676914 3' |
| 6379 | 16241 | 26401 | 7.41 | 1.0E-115 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0995 protein, partial cds |
| 6744 | 16623 | 26811 | 12.78 | 1.0E-115 | BE830187.1 | EST_HUMAN | RC6-ET0081-130700-011-G01 ET0081 Homo sapiens cDNA |
| 6744 | 16623 | 26812 | 12.78 | 1.0E-115 | BE830187.1 | EST_HUMAN | RC6-ET0081-130700-011-G01 ET0081 Homo sapiens cDNA |
| 7116 | 16993 | 27184 | 2.2 | 1.0E-115 | 11434772 | NT | Homo sapiens eukaryotic translation initiation factor 4B (EIF4B), mRNA |
| 7745 | 17595 | 27816 | 1.92 | 1.0E-115 | AB002336.1 | NT | Human mRNA for KIAA0338 gene, partial cds |
| 7745 | 17595 | 27817 | 1.92 | 1.0E-115 | AB002336.1 | NT | Human mRNA for KIAA0338 gene, partial cds |
| 8100 | 17990 | 28239 | 3.5 | 1.0E-115 | AW571544.1 | EST_HUMAN | xx3208.x1 NCI_CGAP_Utr Homo sapiens cDNA clone IMAGE:2839239 3' similar to SW:CAYP_CANFA |
| 8701 | 18519 | 28801 | 2.26 | 1.0E-115 | 4502528 | NT | P10463 CALYCPHOSINE; |
| 560 | 10500 | 20306 | 1.42 | 1.0E-116 | BE275502.1 | EST_HUMAN | Homo sapiens calcium channel, voltage-dependent, alpha 1E subunit (CACNA1E) mRNA |
| 783 | 10713 | 20552 | 1.25 | 1.0E-116 | 4507334 | NT | 601121347F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2988875 5' |
| 841 | 10768 | 21733 | 6.89 | 1.0E-116 | 4507334 | NT | Homo sapiens synaptobrevin 1 (SYNJ1), mRNA |
| 1952 | 11847 | 21733 | 2.38 | 1.0E-116 | 5174478 | NT | Homo sapiens synaptobrevin 1 (SYNJ1), mRNA |
| 1952 | 11847 | 21734 | 2.38 | 1.0E-116 | 5174478 | NT | Homo sapiens pericentrin (PCNT) mRNA |
| 1980 | 11873 | 21765 | 1.21 | 1.0E-116 | AU133080.1 | EST_HUMAN | Homo sapiens pericentrin (PCNT) mRNA |
| 2050 | 12711 | 21834 | 1.01 | 1.0E-116 | M19824.1 | NT | AU133080 NT2RP4 Homo sapiens cDNA clone NT2RP4001228 5' |
| 2050 | 12711 | 21835 | 1.01 | 1.0E-116 | M19824.1 | NT | Human apolipoprotein B-100 (apoB) gene, exons 17 and 18 |
| 2259 | 12143 | 22042 | 1.88 | 1.0E-116 | 5453941 | NT | Human apolipoprotein B-100 (apoB) gene, exons 17 and 18 |
| 2293 | 12175 | | 1.49 | 1.0E-116 | U78308.1 | NT | Homo sapiens protein phosphatase, EF hand calcium-binding domain 1 (PPEF1) mRNA |
| 2407 | 12284 | 22181 | 4.48 | 1.0E-116 | AB018333.1 | NT | Human olfactory receptor pseudo_olfr17-01 (OR17-01) pseudogene, complete cds |
| 2704 | 12656 | 22458 | 2.19 | 1.0E-116 | BE889256.1 | EST_HUMAN | Homo sapiens mRNA for KIAA0790 protein, partial cds |
| 3137 | 13062 | 22860 | 4.73 | 1.0E-116 | L77570.1 | NT | 601513337F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914600 5' |
| 3137 | 13062 | 22861 | 4.73 | 1.0E-116 | L77570.1 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 4281 | 14180 | 23958 | 2.01 | 1.0E-116 | 5031954 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 4747 | 14632 | 24418 | 2.17 | 1.0E-116 | A1907096.1 | EST_HUMAN | Homo sapiens sodium phosphate transporter 3 (NPT3) mRNA |
| 5122 | 14990 | 24764 | 1.2 | 1.0E-116 | AJ243213.1 | NT | PM-BT135-070499-016 BT135 Homo sapiens cDNA |
| | | | | | | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 5637 | 15550 | 25641 | 5.88 | 1.0E-116 | W42822.1 | EST_HUMAN | zc24d07.r1 Soares_senescent_fibroblasts NbHSF Homo sapiens cDNA clone IMAGE:323245 5' similar to SW:MDHM_MOUSE P08249 MALATE DEHYDROGENASE, MITOCHONDRIAL PRECURSOR ; |
| 5768 | 15675 | 25781 | 1.65 | 1.0E-116 | AB046856.1 | NT | Homo sapiens mRNA for KIAA1636 protein, partial cds |

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Table 4
Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 5768 | 15675 | 25782 | 1.65 | 1.0E-116 | AB045856.1 | NT | Homo sapiens mRNA for KIAA1636 protein, partial cds |
| 5853 | 15759 | 25877 | 72.79 | 1.0E-116 | BF677910.1 | EST_HUMAN | 602084730F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249087 5' |
| 5924 | 15829 | | 1.8 | 1.0E-116 | BE158133.1 | EST_HUMAN | MR2-HT0379-210200-102-b04 HT0379 Homo sapiens cDNA |
| 6145 | 16018 | 26156 | 3.59 | 1.0E-116 | C02944.1 | EST_HUMAN | C02944 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NHC0567 |
| 6275 | 16139 | 26295 | 7.97 | 1.0E-116 | AV716314.1 | EST_HUMAN | AV716314 DCB Homo sapiens cDNA clone DCB8CG06 5' |
| 6674 | 16753 | 26949 | 1.99 | 1.0E-116 | AA354256.1 | EST_HUMAN | EST62885 Jurkat T-cells V Homo sapiens cDNA 5' end similar to keratin 2 |
| 6874 | 16753 | 26950 | 1.99 | 1.0E-116 | AA354256.1 | EST_HUMAN | EST62885 Jurkat T-cells V Homo sapiens cDNA 5' end similar to keratin 2 |
| 7173 | 17050 | 27239 | 1.43 | 1.0E-116 | BE565507.1 | EST_HUMAN | 601336268F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3680680 5' |
| 7260 | 17137 | 27330 | 1.98 | 1.0E-116 | AI216352.1 | EST_HUMAN | q09c05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1844168 3' similar to gb:X53741.maf1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN); |
| 7577 | 17428 | 27642 | 1.77 | 1.0E-116 | 11418646 | NT | Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2), mRNA |
| 8074 | 17965 | 28216 | 3.68 | 1.0E-116 | BF335849.1 | EST_HUMAN | CM2-CT0482-300800-349-e06 CT0482 Homo sapiens cDNA |
| 8477 | 18350 | 28615 | 3.23 | 1.0E-116 | AI367140.1 | EST_HUMAN | qq41e04.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1935102 3' similar to WP:B0495.7 CE01765; |
| 9591 | 19741 | | 2.08 | 1.0E-116 | BE258599.1 | EST_HUMAN | 601108350F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344580 5' |
| 9776 | 19814 | | 2.68 | 1.0E-116 | AL134889.1 | EST_HUMAN | DKFZp762L1110_r1 762 (synonym: hme2) Homo sapiens cDNA clone DKFZp762L1110 5' |
| 546 | 10487 | 20286 | 1.18 | 1.0E-117 | 4826636 | NT | Homo sapiens acetyl-Coenzyme A carboxylase alpha (ACACA), mRNA |
| 1061 | 12884 | 20821 | 1.59 | 1.0E-117 | AF124393.1 | NT | Mus musculus fragile-X-related protein 1 (Fxr1h) gene, exons 13a through 15 |
| 1719 | 11820 | 21439 | 6.25 | 1.0E-117 | AF123320.1 | NT | Homo sapiens lymphocyte activation-associated protein mRNA, complete cds |
| 1790 | 11688 | 21564 | 2.3 | 1.0E-117 | M19816.1 | NT | Human apolipoprotein B-100 (apoB) gene, exon 10 |
| 2164 | 12051 | 21952 | 2.99 | 1.0E-117 | AW957699.1 | EST_HUMAN | EST369769 MAGe resequences, MAGe Homo sapiens cDNA |
| 3230 | 13154 | 22953 | 1.75 | 1.0E-117 | AA978114.1 | EST_HUMAN | op32c1.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1578548 3' |
| 3908 | 13818 | 23599 | 3.62 | 1.0E-117 | AA316723.1 | EST_HUMAN | EST188414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29 |
| 4247 | 14146 | 23920 | 1.86 | 1.0E-117 | 8659594 | NT | Homo sapiens collagen, type IV, alpha 5 (Alport syndrome) (COL4A5), mRNA |
| 4475 | 14369 | 24158 | 1.88 | 1.0E-117 | AL042120.1 | EST_HUMAN | DKFZp434C120_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C120 5' |
| 4622 | 14510 | 24299 | 1.35 | 1.0E-117 | X89670.1 | NT | H. sapiens mRNA for TPCR16 protein |
| 4622 | 14510 | 24300 | 1.35 | 1.0E-117 | X89670.1 | NT | H. sapiens mRNA for TPCR16 protein |
| 4705 | 14591 | 24382 | 9.22 | 1.0E-117 | AF134304.2 | NT | Homo sapiens Scar2 (SCAR2) gene, partial cds |
| 4705 | 14591 | 24383 | 9.22 | 1.0E-117 | AF134304.2 | NT | Homo sapiens Scar2 (SCAR2) gene, partial cds |
| 4856 | 14736 | 24516 | 3.36 | 1.0E-117 | AB020673.1 | NT | Homo sapiens mRNA for KIAA0866 protein, complete cds |
| 5280 | 15202 | 24978 | 2.5 | 1.0E-117 | BE730508.1 | EST_HUMAN | 601562657F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3832214 5' |
| 6404 | 16265 | 26426 | 4.99 | 1.0E-117 | L76571.1 | NT | Homo sapiens nuclear hormone receptor (shp) gene, 3' end of cds |
| 6404 | 16265 | 26427 | 4.99 | 1.0E-117 | L76571.1 | NT | Homo sapiens nuclear hormone receptor (shp) gene, 3' end of cds |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6455 | 16316 | 26482 | 3.77 | 1.0E-117 | AV717788.1 | EST_HUMAN | AV717788 DCB Homo sapiens cDNA clone DCBBAE01 5' |
| 6455 | 16316 | 26483 | 3.77 | 1.0E-117 | AV717788.1 | EST_HUMAN | AV717788 DCB Homo sapiens cDNA clone DCBBAE01 5' |
| 6651 | 16531 | 26725 | 5.93 | 1.0E-117 | AI950145.1 | EST_HUMAN | wp86b07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2468629 3' similar to TR:O75065 |
| 6837 | 16716 | 26908 | 1.7 | 1.0E-117 | 10834989 | NT | O76065 KIAA0477 PROTEIN.; |
| 6837 | 16716 | 26909 | 1.7 | 1.0E-117 | 10834989 | NT | Homo sapiens neural cell adhesion molecule 1 (NCAM1), mRNA |
| 7361 | 17228 | 27428 | 2.28 | 1.0E-117 | D16524.1 | NT | Homo sapiens neural cell adhesion molecule 1 (NCAM1), mRNA |
| 7635 | 17486 | 27706 | 1.51 | 1.0E-117 | BE733922.1 | EST_HUMAN | Human gene for very low density lipoprotein receptor, exon 11 |
| 8385 | 18262 | 28612 | 10.31 | 1.0E-117 | W80605.1 | EST_HUMAN | 601599317F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843748 5' |
| 8595 | 18462 | 28732 | 3.96 | 1.0E-117 | AB011541.1 | NT | z883b11.1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:347229 5' similar to |
| 8595 | 18462 | 28733 | 3.96 | 1.0E-117 | AB011541.1 | NT | gb:MI4219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 8698 | 18516 | 28974 | 15.63 | 1.0E-117 | BE269856.1 | EST_HUMAN | Homo sapiens mRNA for MEGF8, partial cds |
| 8872 | 18684 | 28974 | 2.22 | 1.0E-117 | 4501848 | NT | Homo sapiens mRNA for MEGF8, partial cds |
| 8872 | 18684 | 28975 | 2.22 | 1.0E-117 | 4501848 | NT | Homo sapiens mRNA for MEGF8, partial cds |
| 64 | 10050 | 19863 | 9.54 | 1.0E-118 | AF161500.1 | NT | 601186203F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3544296 5' |
| 90 | 10074 | 19890 | 2.59 | 1.0E-118 | AL045854.1 | EST_HUMAN | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 506 | 10448 | 20261 | 5.09 | 1.0E-118 | 7657016 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 896 | 12680 | 20667 | 0.98 | 1.0E-118 | 5174680 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 2186 | 12073 | 21975 | 2.39 | 1.0E-118 | BE389705.1 | EST_HUMAN | Homo sapiens sine oculis homeobox (Drosophila) homolog 1 (SIX1) mRNA |
| 2186 | 12073 | 21976 | 2.39 | 1.0E-118 | BE389705.1 | EST_HUMAN | 601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604019 5' |
| 2186 | 12073 | 21977 | 2.39 | 1.0E-118 | BE389705.1 | EST_HUMAN | 601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604019 5' |
| 2281 | 12165 | | 3.77 | 1.0E-118 | AW951729.1 | EST_HUMAN | 601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604019 5' |
| 2711 | 12574 | 22465 | 2.38 | 1.0E-118 | U07000.1 | NT | EST363799 MAGC resequences, MAGB Homo sapiens cDNA |
| 2711 | 12574 | 22466 | 2.38 | 1.0E-118 | U07000.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 3066 | 12993 | | 3.73 | 1.0E-118 | Y13932.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 3159 | 13084 | 22887 | 4.51 | 1.0E-118 | AI347694.1 | EST_HUMAN | Homo sapiens PRK7 exon 7 |
| 3159 | 13084 | 22888 | 4.51 | 1.0E-118 | AI347694.1 | EST_HUMAN | qp01f05.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1916789 3' |
| 3998 | 13904 | 23679 | 7.67 | 1.0E-118 | D23660.1 | NT | qp01f05.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1916789 3' |
| 5329 | 15249 | 25053 | 2.02 | 1.0E-118 | AF142624.1 | NT | Human mRNA for ribosomal protein, complete cds |
| 5329 | 15249 | 25054 | 2.02 | 1.0E-118 | AF142624.1 | NT | Homo sapiens calcium channel gamma 4 subunit (CACNG4) gene, exon 3 |
| 5620 | 15535 | 25620 | 1.88 | 1.0E-118 | 11420764 | NT | Homo sapiens calcium channel gamma 4 subunit (CACNG4) gene, exon 3 |
| 6020 | 15924 | 26054 | 1.87 | 1.0E-118 | 4557732 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 6020 | 15924 | 26055 | 1.87 | 1.0E-118 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 6482 | 16341 | 26509 | 4.13 | 1.0E-118 | 11431050 | NT | Homo sapiens chromosome 2 open reading frame 3 (C2ORF3), mRNA |
| 6648 | 16528 | 26722 | 2.23 | 1.0E-118 | BE781223.1 | EST_HUMAN | 601469159F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872247 5' |
| 6884 | 16763 | 26960 | 7.81 | 1.0E-118 | BE062855.1 | EST_HUMAN | QV0-BT0263-090200-097-h03 BT0263 Homo sapiens cDNA |
| 6884 | 16763 | 26961 | 7.81 | 1.0E-118 | BE062855.1 | EST_HUMAN | QV0-BT0263-090200-097-h03 BT0263 Homo sapiens cDNA |
| 6888 | 16767 | 26963 | 1.34 | 1.0E-118 | AA443024.1 | EST_HUMAN | z88d07.r1 Soares_NhlhMPu_S1 Homo sapiens cDNA clone IMAGE:811789 5' |
| 6888 | 16767 | 26964 | 1.34 | 1.0E-118 | AA443024.1 | EST_HUMAN | z88d07.r1 Soares_NhlhMPu_S1 Homo sapiens cDNA clone IMAGE:811789 5' |
| 7035 | 16912 | 27100 | 1.16 | 1.0E-118 | AB002381.1 | NT | Human mRNA for KIAA0383 gene, partial cds |
| 7035 | 16912 | 27101 | 1.16 | 1.0E-118 | AB002381.1 | NT | Human mRNA for KIAA0383 gene, partial cds |
| 7082 | 16939 | 27129 | 1.28 | 1.0E-118 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 7082 | 16939 | 27130 | 1.28 | 1.0E-118 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 7223 | 17100 | 27288 | 5.71 | 1.0E-118 | BE263134.1 | EST_HUMAN | 601144863F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160502 5' |
| 7936 | 17786 | 28027 | 1.18 | 1.0E-118 | BF195407.1 | EST_HUMAN | 7n17e09.x1 NCI_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:3564785 3' similar to SW:ZP3A_HUMAN P21754 ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR ; |
| 8598 | 18485 | 28737 | 3.06 | 1.0E-118 | AA315007.1 | EST_HUMAN | EST186814 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to dynein, light chain 1, cytoplasmic |
| 8847 | 18659 | 28947 | 1.75 | 1.0E-118 | BF093687.1 | EST_HUMAN | QV0-UM0091-120900-385-b12 UM0091 Homo sapiens cDNA |
| 8847 | 18659 | 28948 | 1.75 | 1.0E-118 | BF093687.1 | EST_HUMAN | QV0-UM0091-120900-385-b12 UM0091 Homo sapiens cDNA |
| 741 | 10672 | 20508 | 0.81 | 1.0E-119 | AF170492.1 | NT | Homo sapiens chloride channel CLC4 (CLC4) mRNA, complete cds |
| 1021 | 12683 | 20781 | 1.55 | 1.0E-119 | 7705607 | NT | Homo sapiens GGI-105 protein (LOC51011), mRNA |
| 1891 | 11786 | 21663 | 2.09 | 1.0E-119 | AB023147.1 | NT | Homo sapiens mRNA for KIAA0930 protein, partial cds |
| 3084 | 12991 | 22783 | 1.81 | 1.0E-119 | 8922205 | NT | Homo sapiens hypothetical protein FLJ10052 (FLJ10052), mRNA |
| 3202 | 13126 | | 1.08 | 1.0E-119 | AA916760.1 | EST_HUMAN | on10b05.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1556241 3' similar to WP:E04F6.2 CE01214 ; |
| 3870 | 13781 | 23573 | 1.15 | 1.0E-119 | 4504416 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 5111 | 14979 | 24753 | 0.95 | 1.0E-119 | AA077394.1 | EST_HUMAN | 7B14F03 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B14F03 |
| 5272 | 15194 | 24969 | 2.45 | 1.0E-119 | AU133399.1 | EST_HUMAN | AU133399 NT2RP4 Homo sapiens cDNA clone NT2RP4001991 5' |
| 5282 | 15204 | 24980 | 14.93 | 1.0E-119 | M89914.1 | NT | Human neurofibromin (NF1) gene, complete cds |
| 5285 | 15207 | 24984 | 3.32 | 1.0E-119 | BE936121.1 | EST_HUMAN | RC1-NN0073-250800-018-g06 NN0073 Homo sapiens cDNA |
| 5336 | 15256 | 25079 | 2.24 | 1.0E-119 | AV693731.1 | EST_HUMAN | AV693731 GKC Homo sapiens cDNA clone GKCDH803 5' |
| 5726 | 15633 | 25736 | 7.19 | 1.0E-119 | AI150703.1 | EST_HUMAN | qb77c09.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1706128 3' similar to SW:K1CJ_MOUSE P02535 KERATIN, TYPE I CYTOSKELETAL 10 ; |
| 5887 | 15793 | 25914 | 2.79 | 1.0E-119 | X06292.1 | NT | Human c-fes/fps proto-oncogene |
| 5895 | 15801 | 25925 | 4.26 | 1.0E-119 | AW974193.1 | EST_HUMAN | EST386286 IMAGE resequences, MAGM Homo sapiens cDNA |
| 6381 | 16243 | 26403 | 1.42 | 1.0E-119 | BE796614.1 | EST_HUMAN | 601592005F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946081 5' |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 7883 | 17733 | 27677 | 1.48 | 1.0E-119 | AA465124.1 | EST_HUMAN | aa32705.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814977 5' |
| 7998 | 17848 | 28089 | 1.42 | 1.0E-119 | AJ297701.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17 |
| 8535 | 18407 | | 9.72 | 1.0E-119 | BF569571.1 | EST_HUMAN | 602186072F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310633 5' |
| 9348 | 19671 | | 1.37 | 1.0E-119 | AW847519.1 | EST_HUMAN | RC3-CT0212-240999-011-f03 CT0212 Homo sapiens cDNA |
| 237 | 10205 | 20022 | 1.4 | 1.0E-120 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 298 | 10262 | 20082 | 1.34 | 1.0E-120 | 4507334 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 1025 | 10943 | 20787 | 1.67 | 1.0E-120 | AF248540.1 | NT | Homo sapiens intersecitin 2 (SH3D1B) mRNA, complete cds |
| 1025 | 10943 | 20788 | 1.67 | 1.0E-120 | AF248540.1 | NT | Homo sapiens intersecitin 2 (SH3D1B) mRNA, complete cds |
| 1406 | 11311 | 21172 | 4.53 | 1.0E-120 | N44873.1 | EST_HUMAN | yy40g12.r1 Soares melanocyte 2NblHM Homo sapiens cDNA clone IMAGE:273768 5' |
| 1583 | 11487 | 21348 | 3.87 | 1.0E-120 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 2060 | 11950 | 21847 | 0.9 | 1.0E-120 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 2060 | 11950 | 21848 | 0.9 | 1.0E-120 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 2482 | 12358 | 22250 | 0.84 | 1.0E-120 | 4758124 | NT | Homo sapiens aquaporin 4 (AQP4), splice variant b, mRNA |
| 3267 | 10292 | 20082 | 1.13 | 1.0E-120 | 4507334 | NT | Homo sapiens synaptotagmin 1 (SYNJ1), mRNA |
| 4260 | 14189 | 23936 | 1.17 | 1.0E-120 | AF056490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4260 | 14159 | 23937 | 1.17 | 1.0E-120 | AF056490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4563 | 14455 | 24242 | 2.79 | 1.0E-120 | AF098463.1 | NT | Homo sapiens stannocalcin (STC) gene, partial cds |
| 4563 | 14455 | 24243 | 2.79 | 1.0E-120 | AF098463.1 | NT | Homo sapiens stannocalcin (STC) gene, partial cds |
| 5168 | 15034 | 24801 | 0.89 | 1.0E-120 | A190903.1 | EST_HUMAN | qd61f03.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1733981 3' |
| 5508 | 15426 | 25488 | 13.84 | 1.0E-120 | BF568222.1 | EST_HUMAN | 602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5' |
| 5508 | 15426 | 25489 | 13.84 | 1.0E-120 | BF568222.1 | EST_HUMAN | 602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5' |
| 6469 | 16328 | 26495 | 1.49 | 1.0E-120 | D34619.1 | NT | Human TBXAS1 gene for thromboxane synthase, exon 7 |
| 6608 | 16488 | 26674 | 1.67 | 1.0E-120 | Y00067.1 | NT | Human gene for neurofilament subunit M (NF-M) |
| 6608 | 16488 | 26675 | 1.67 | 1.0E-120 | Y00067.1 | NT | Human gene for neurofilament subunit M (NF-M) |
| 6850 | 16729 | 26924 | 2.44 | 1.0E-120 | BF337599.1 | EST_HUMAN | 602035352F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183333 5' |
| 6858 | 16777 | 26971 | 2.43 | 1.0E-120 | AB007964.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495 |
| 6898 | 16777 | 26972 | 2.43 | 1.0E-120 | AB007964.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495 |
| 6922 | 16800 | 26993 | 1.33 | 1.0E-120 | AB007934.1 | NT | Homo sapiens mRNA for KIAA0465 protein, partial cds |
| 7470 | 17330 | 27535 | 4.54 | 1.0E-120 | BE392102.1 | EST_HUMAN | 601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5' |
| 7470 | 17330 | 27536 | 4.54 | 1.0E-120 | BE392102.1 | EST_HUMAN | 601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5' |
| 7617 | 17488 | 27687 | 4.72 | 1.0E-120 | BF306541.1 | EST_HUMAN | 601888956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5' |
| 7626 | 17477 | 27698 | 7.31 | 1.0E-120 | AJ133205.1 | EST_HUMAN | AU133205 NT2RP4 Homo sapiens cDNA clone NT2RP4001541 5' |
| 7798 | 17648 | 27885 | 2.53 | 1.0E-120 | AB029000.1 | NT | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 8469 | 18342 | 28607 | 6.4 | 1.0E-120 | BE296387.1 | EST_HUMAN | 601176727F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532015 5' |

Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|--|
| 8914 | 18722 | 28013 | 2.07 | 1.0E-120 | U94774.1 | NT | Human muscle glycogen phosphorylase (PYGM) gene, 5'UTR and exon 1 |
| 9495 | 19111 | 25288 | 1.36 | 1.0E-120 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 67 | 10052 | 19867 | 1.04 | 1.0E-121 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 374 | 10328 | 20151 | 0.98 | 1.0E-121 | AU134963.1 | EST_HUMAN | AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5' |
| 707 | 12674 | 20465 | 1.23 | 1.0E-121 | 5032192 | NT | Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA |
| 1556 | 11461 | 21319 | 0.99 | 1.0E-121 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 1923 | 11818 | 21697 | 0.89 | 1.0E-121 | 4755139 | NT | Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (INPP4A), splice variant a, mRNA |
| 1923 | 11818 | 21698 | 0.89 | 1.0E-121 | 4755139 | NT | Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (INPP4A), splice variant a, mRNA |
| 2055 | 11945 | 21841 | 1.17 | 1.0E-121 | L76631.1 | NT | Homo sapiens metabotropic glutamate receptor 1 beta (mGluR1beta) mRNA, complete cds |
| 2530 | 12404 | 22295 | 1.05 | 1.0E-121 | BF344378.1 | EST_HUMAN | 602014759F1 NCL_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150286 5' |
| 2530 | 12404 | 22296 | 1.05 | 1.0E-121 | BF344378.1 | EST_HUMAN | 602014759F1 NCL_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150286 5' |
| 3042 | 12969 | 22763 | 3.09 | 1.0E-121 | Y19208.1 | NT | Homo sapiens HBB3 gene for hair keratin, exons 1 to 9 |
| 3042 | 12969 | 22764 | 3.09 | 1.0E-121 | Y19208.1 | NT | Homo sapiens HBB3 gene for hair keratin, exons 1 to 9 |
| 3492 | 13408 | 23213 | 1.09 | 1.0E-121 | AB037758.1 | NT | Homo sapiens mRNA for KIAA1337 protein, partial cds |
| 3492 | 13408 | 23214 | 1.09 | 1.0E-121 | AB037758.1 | NT | Homo sapiens mRNA for KIAA1337 protein, partial cds |
| 3624 | 13538 | 23325 | 6.61 | 1.0E-121 | AF155156.2 | NT | Homo sapiens adaptor-related protein complex AP-4 epsilon subunit mRNA, complete cds |
| 4236 | 14134 | 23910 | 1.21 | 1.0E-121 | AI263294.1 | EST_HUMAN | qx57b01.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2005417 3' |
| 4901 | 14781 | 24556 | 2.55 | 1.0E-121 | X91937.1 | NT | H. sapiens ECE-1 gene (exon 17) |
| 5050 | 14922 | 24695 | 1.03 | 1.0E-121 | AI904151.1 | EST_HUMAN | CM-BT043-090299-075 BT043 Homo sapiens cDNA |
| 6632 | 16512 | 26701 | 2.58 | 1.0E-121 | D84122.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 8 |
| 6632 | 16512 | 26702 | 2.58 | 1.0E-121 | D84122.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 8 |
| 8157 | 18045 | 28297 | 4.44 | 1.0E-121 | 11427788 | NT | Homo sapiens COX11 (yeast) homolog, cytochrome c oxidase assembly protein (COX11), mRNA |
| 8163 | 18051 | 28303 | 2.28 | 1.0E-121 | AF064200.1 | NT | Homo sapiens UDP-glucuronosyltransferase 2B4 precursor (UGT2B4) mRNA, UGT2B4*E458 allele, complete cds |
| 8336 | 18213 | 28466 | 4.91 | 1.0E-121 | 7330334 | NT | Homo sapiens chloride intracellular channel 4 like (CLIC4L), mRNA |
| 8363 | 18240 | 28489 | 3.48 | 1.0E-121 | N59624.1 | EST_HUMAN | yy74c01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248448 3' |
| 267 | 10232 | 20047 | 3.99 | 1.0E-122 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 333 | 10292 | 20107 | 2.22 | 1.0E-122 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 355 | 10312 | 20132 | 1.54 | 1.0E-122 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 864 | 10790 | 20841 | 2.85 | 1.0E-122 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 1201 | 11111 | 20957 | 3.41 | 1.0E-122 | M20707.1 | NT | Human kappa-immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II) |

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Table 4

Single Exon Probes Expressed in Heart

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Accession No. | Top Hit Database Source | Top Hit Descriptor |
|------------------------|-----------------------|-------------------|----------------------|---|--------------------------|-------------------------------|---|
| 1667 | 11569 | 21435 | 1.32 | 1.0E-122 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1684 | 11586 | 21458 | 2.01 | 1.0E-122 | 11418424 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 1684 | 11586 | 21459 | 2.01 | 1.0E-122 | 11418424 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 1772 | 11671 | 21549 | 5.91 | 1.0E-122 | BE96024.1 | EST_HUMAN | 601497032F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899368 5' |
| 2441 | 12318 | 22215 | 10.56 | 1.0E-122 | BF316170.1 | EST_HUMAN | 601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125234 5' |
| 2441 | 12318 | 22216 | 10.56 | 1.0E-122 | BF316170.1 | EST_HUMAN | 601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125234 5' |
| 4738 | 14623 | 24409 | 1.82 | 1.0E-122 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 4918 | 14797 | | 1.2 | 1.0E-122 | AW504645.1 | EST_HUMAN | U1-HF-BN0-all-a-03-Q-U1r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079948 5' |
| 6051 | 15337 | 25390 | 6.41 | 1.0E-122 | BE256039.1 | EST_HUMAN | 601113567F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354232 5' |
| 7219 | 17096 | 27286 | 1.35 | 1.0E-122 | 11424216 | NT | Homo sapiens lethal giant larvae (Drosophila) homolog 2 (LLGL2), mRNA |
| 9098 | 18869 | | 4.35 | 1.0E-122 | 11418187 | NT | Homo sapiens phosphomannomutase 1 (PMM1), mRNA |
| 181 | 10153 | 19908 | 1.07 | 1.0E-123 | U31519.1 | NT | Human phosphoenolpyruvate carboxykinase (PCK1) gene, promoter region and partial cds |
| 751 | 10881 | 20517 | 1.72 | 1.0E-123 | BF345274.1 | EST_HUMAN | 602018035F1 NCI_CGAP_Brm67 Homo sapiens cDNA clone IMAGE:4153670 5' |
| 751 | 10881 | 20518 | 1.72 | 1.0E-123 | BF345274.1 | EST_HUMAN | 602018035F1 NCI_CGAP_Brm67 Homo sapiens cDNA clone IMAGE:4153670 5' |
| 996 | 10916 | 20760 | 3.79 | 1.0E-123 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 1005 | 10923 | 20767 | 5.06 | 1.0E-123 | 5803114 | NT | Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA |
| 1218 | 11126 | 20976 | 3.35 | 1.0E-123 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |
| 1218 | 11126 | 20977 | 3.35 | 1.0E-123 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |
| 1439 | 11344 | 21211 | 1.76 | 1.0E-123 | AJ388641.1 | NT | Homo sapiens partial mRNA for immunoglobulin kappa chain variable region (IGVK gene), sample GN02 |
| 2052 | 11942 | 21837 | 2.98 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2052 | 11942 | 21838 | 2.98 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2052 | 11942 | 21839 | 2.98 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2267 | 12151 | | 4.5 | 1.0E-123 | 7705962 | NT | Homo sapiens RAB9-like protein (LOC51209), mRNA |
| 5344 | 15265 | 25091 | 1.75 | 1.0E-123 | L34219.1 | NT | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds |
| 5344 | 15265 | 25092 | 1.75 | 1.0E-123 | L34219.1 | NT | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds |
| 5425 | 15346 | 25400 | 1.29 | 1.0E-123 | BE799746.1 | EST_HUMAN | 601591108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945433 5' |
| 5893 | 15799 | 25923 | 2.27 | 1.0E-123 | AU118435.1 | EST_HUMAN | AU118435 HEMBA1 Homo sapiens cDNA clone HEMBA1003591 5' |
| 6186 | 16071 | 26221 | 1.3 | 1.0E-123 | U42224.1 | NT | Human growth hormone releasing hormone gene, exon 7 |
| 6509 | 16368 | 26545 | 1.95 | 1.0E-123 | BE263001.1 | EST_HUMAN | 601152815F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3509162 5' |
| 7392 | 17310 | 27517 | 4.14 | 1.0E-123 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |